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PAGE  
108



# Digital Photography

Volume 42

## EXPERT TIPS

# *Chasing the Light*

LANDSCAPE LEGEND KEN DUNCAN ON PRESERVING YOUR IMAGES FOR FUTURE GENERATIONS! P28

## PHOTO PASSION

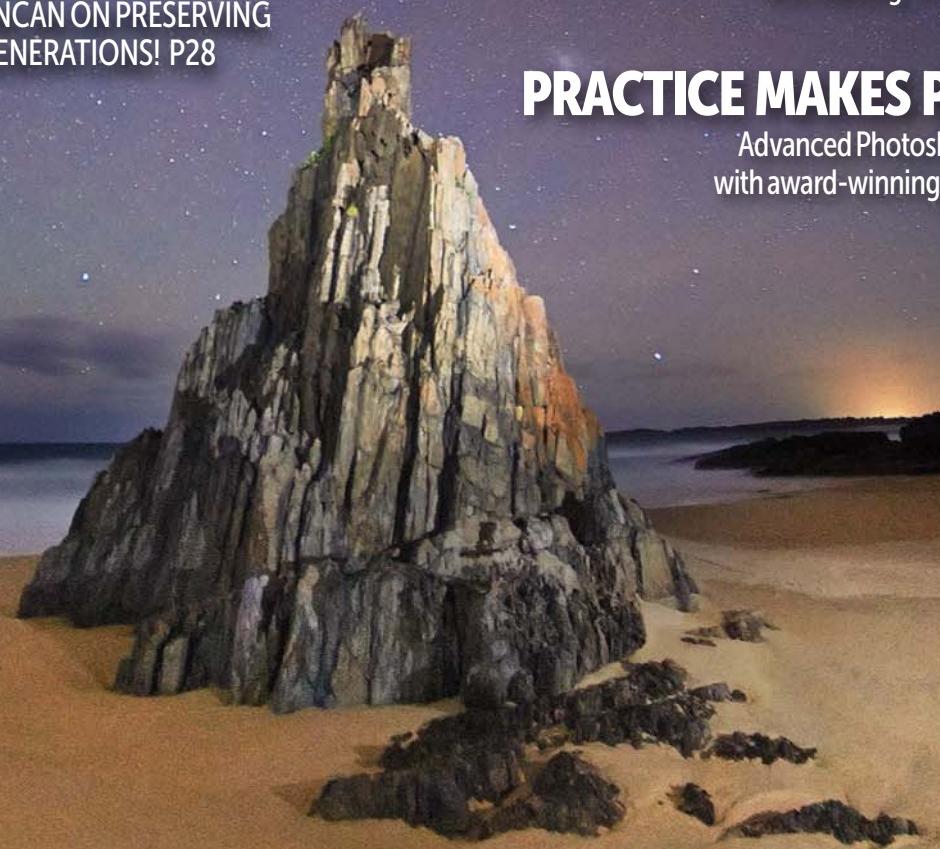
- 12 TIPS TO INSTANT SUCCESS
- KICK-START YOUR PHOTOGRAPHY
- SPARK YOUR CREATIVITY p48

## CALL TO ADVENTURE

The secret to becoming a self-starting travel shooter p18

## PRACTICE MAKES PERFECT

Advanced Photoshop techniques with award-winning Shanx Bose p40



## SONY A7R!

THE FUTURE OF FULL-FRAME PHOTOGRAPHY? p88



PLUS

## Perfect Pairs

HOW TO SHOOT COUPLES CREATIVELY EVERY TIME p79

## Shooting Stars

CAPTURING STAR TRAILS MADE EASY p71



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# Digital Photography

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c i t r u s m e d i a



**“T**HE URGE TO BEAR WITNESS to Earth's greatest landscapes has sent me to all corners of the globe," says self-made travel photographer Clint Burkinshaw. That's him perched on a snow-capped peak in Nepal, above, so it's safe to say he's speaking from experience. "It's inspired me to continue that never-ending search for the next adventure," he says.

Clint's Call to Adventure on page 18 is certainly the stuff of pure inspiration – to get out there and capture everything before memories (or worse yet, the landscapes themselves) wither and fade. But the granddaddy of landscape panoramas, Ken Duncan, adds an important two cents worth on page 28 that we can all benefit from. "How can you ensure your life's journey is well remembered?" he asks. The answer is not just to bear witness and then fill up a thousand aptly named "memory" cards. It's to turn those memories into tangible expressions of your creativity – not just for yourself, but for us and for future generations.

Photographers know all about discipline. Anyone who's sat motionless for hours on a lonely hillside waiting for just the right light knows what I mean. The trick is to channel a little of that discipline towards getting your images off the hard drives and into frames where everyone can enjoy them. Share your vision of the world with others and you really do make this world a better place.

*Greg Barton* **Editor**

## ON THIS ISSUE'S COVER...

"Heaven Declares" is the name of our cover image, from the great Ken Duncan. We declare it to be a magical piece of non-panoramic work from the man who made his name in that format. For more of Ken's superb imagery (and advice), check out page 28.



## SUBSCRIBE TODAY!

You can get your regular fix of *Digital Photography* inspiration and advice direct to your door or mobile device by subscribing to our print and/or digital editions. We always have competitions with opportunities to win great prizes too! For more details, see page 78.



# Contents

ISSUE 42

## 3 EDITOR'S WELCOME

Editor Greg Barton says it's time we stopped filling memory cards and started filling frames.

## 6 PORTFOLIO

Kicking things off with some breathtaking shots that are sure to spark your creativity.

## 18 CALL TO ADVENTURE

How South Australia's Clint Burkinshaw went from point-and-shoot snapper to international travel photographer.

## 28 CHASING THE LIGHT

Landscape legend Ken Duncan mixes advice with inspiration, so that we all might leave a meaningful legacy behind.

## 36 AIR DRIVE

French photographer Renaud Marion's fascinating collection brings a futuristic dream to life.

## 108 YOUR GALLERY

All the latest works of art from the *Digital Photography* community – with prizes to be won!



## Photo technique & advice

### 40 ADVANCED PHOTOSHOP TECHNIQUES

Shanx Bose walks us through the techniques needed to achieve an image he calls "Perfect".

### 48 KICKSTART YOUR PHOTOGRAPHY

Advance your photography with new ideas, skills and inspiration.

### 52 PHOTO SKILLS

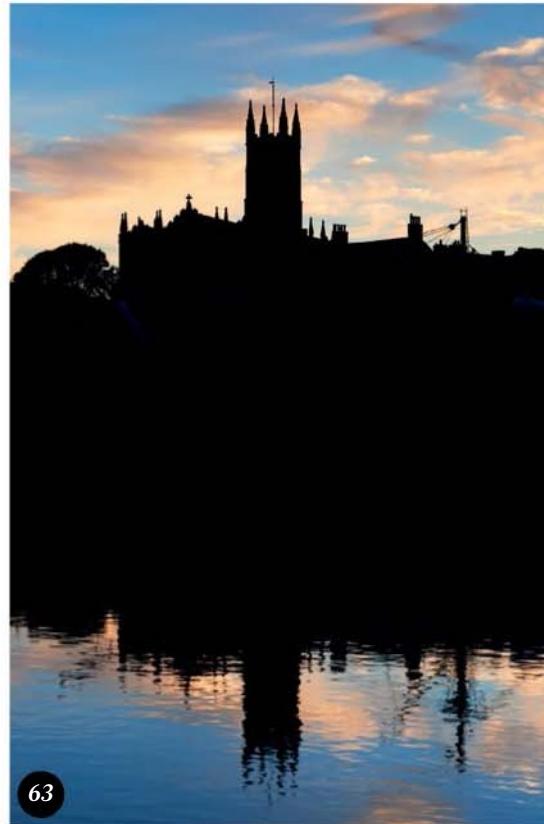
Capturing birds in flight; painterly portraits; landscape silhouettes; ghostly long exposures and more.

### 74 EDIT: ELEMENTS/PHOTOSHOP

Post-processing tips that can make all the difference!

### 79 FAMILY ALBUM

Kate Hopewell-Smith shares her approach and techniques for photographing couples.





88

## Gear: Tested & rated

### 86 PHOTO NEWS/MINI TESTS

The latest photo products and software reviewed.

#### 90 PANASONIC GH4

The new compact king of 4K video recording.

#### 92 TAMRON 70-200MM LENS

The wedding workhorse has an affordable alternative.

#### 94 PREMIUM TRIPODS

Six of the best compared, plus premium heads.

#### 102 MEMORY CARDS

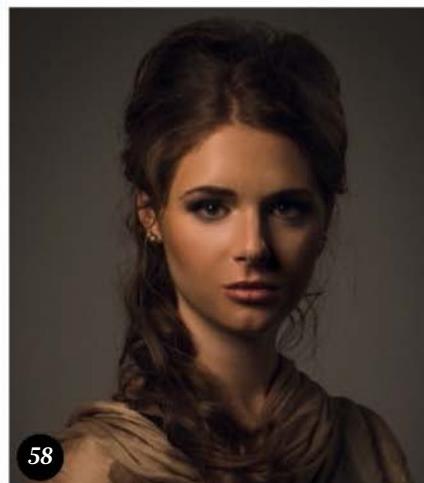
Comparison tests of the leading cards on the market.

#### 106 HITECH LUCROIT FILTER SYSTEM

Filters for ultra wide-angle and fisheye lenses



102



58

## CONTRIBUTING THIS MONTH...



### Clint Burkinshaw ADVENTURE

With his combined passion for travel and photography, Clint has shot some of the most magical landscapes and moments in the world. Here he shares just a few. [explosiveaperture.com](http://explosiveaperture.com)



### Ken Duncan LANDSCAPES

The man who needs no introduction, Ken's new book *Chasing the Light: Australia Wide* is a study in pure inspiration. [kenduncan.com](http://kenduncan.com)



### Shax Bose PHOTOSHOP

Canberra's Shax Bose (Max Photography) is one heck of a shooter... but that's nothing compared to his Photoshop-chops. [Facebook.com/maxphotography.au](https://Facebook.com/maxphotography.au)



### Cassidy Kristiansen PORTRAITS

Recent graduate of Hallmark Institute of Photography, Cassidy has trained under the likes of David Turner, Michael Zide and Gregory Heisler. [cassidylee.com](http://cassidylee.com)



### Daniel Lezano

With more than 30 years of experience as an enthusiast photographer and almost 20 years on photo magazines, Daniel is as passionate as ever about photography, portraits in particular.



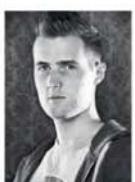
### Kate Hopewell-Smith FAMILY ALBUM

The beautiful portraits by Kate, a Nikon ambassador and lifestyle photographer, can be seen on page 79. [katehopewellsmith.com](http://katehopewellsmith.com)



### Catherine MacBrade STILL-LIFE

Creative genius when it comes to still-life images, Catherine provides pictures to stock libraries and shares her tutorials with you. [catherinemacbride.com](http://catherinemacbride.com)



### Tom Calton TESTS

A professional photographer specialising in portraits and fashion, Tom is also a technical contributor with years of experience testing kit. [tomcalton.co.uk](http://tomcalton.co.uk)



### Richard Hopkins TESTS

With over 30 years' experience testing cameras on photography magazines, Richard is a leading technical expert on photo kit, in particular lenses.

# Portfolio

## Blade Runner

by Julien Grondin

[www.beboyphoto.com](http://www.beboyphoto.com)

"I took this on a rainy day in Hong Kong. The glow over the tallest building is created by the building illuminating the rain clouds above. I tilted the camera to get a more dynamic view. It was challenging to avoid flare because of the rain hitting the lens."

Canon EOS 5D Mk III with EF14mm f/2.8L II USM lens.

Exposure: 20 seconds at f/11 (ISO 50).







## Paris is waking up

by Julien Grondin

[www.beboyphoto.com](http://www.beboyphoto.com)

(Top left) "During early morning you can get a nice reflection of the Eiffel Tower in the River Seine as the boats have not yet disturbed the water."

Canon EOS 5D Mk III with EF 16-35mm f/2.8L II lens.  
Exposure: 30 seconds at f/8 (ISO 50).

## The goddess of Paris

by Julien Grondin

(Middle left) "Taken during a blustery sunset, I used a ten-stop ND filter to smooth the clouds and the water."

Canon EOS 5D Mk III with EF 16-35mm f/2.8L II lens.  
Exposure: 60 seconds at f/16 (ISO 100).

## Mood of Rome

by Julien Grondin

(Left) "I wanted to capture a sun-star effect when the sun touched the top of the Roman Forum, so selected a narrow aperture."

Canon EOS 5D Mk III with EF 16-35mm f/2.8L II lens.  
Exposure: 1/8sec at f/16 (ISO 50).



## **Seraphina**

by Jörg Billwitz

[www.joergbillwitz.de](http://www.joergbillwitz.de)

(Above) "This was shot in an abandoned factory near my home. I love locations like this – they are full of interesting textures and structures. Here, the combination of peeling paint and the model's thick sweater contrast perfectly. This was lit by a single small window."

Canon EOS 5D Mk III with EF 24-70mm f/2.8L II lens.  
Exposure: 1/100sec at f/2.8 (ISO 800).

## **Franzie**

by Jörg Billwitz

(Left) "Shooting with available light in hotel rooms is always a challenge, but one that I really enjoy. Here, I closed all but one of the curtains in the room, allowing a narrow slot of light to hit Franzie. Shadow is as important as light – to hide is often more exciting than to show."

Canon EOS 5D Mk III with EF 50mm f/1.4 USM lens.  
Exposure: 1/50sec at f/1.8 (ISO 200).

# Portfolio



## **The maze**

by Jessica Drossin

[www.jessicadrossin.com](http://www.jessicadrossin.com)

(Above) "This represents the choices we face in life and our limited perspective when making these decisions. The photo is quite deceptive in regard to its location, as it was taken within shrubbery outside of a parking garage!"

Canon EOS 5D Mk III with EF 50mm f/1.8 II lens.  
Exposure: 1/400sec at f/1.8 (ISO 1000).

## **Snow bathed**

by Jessica Drossin

(Left) "I wanted to create a very soft, airy, ethereal look and so purposely overexposed this image. The conditions were overcast and darker than I'd hoped for, so I shot at a relatively high ISO to achieve this shot."

Canon EOS 5D Mk III with EF 70-200mm f/2.8L IS II USM.  
Exposure: 1/500sec at f/3.5 (ISO 2500).

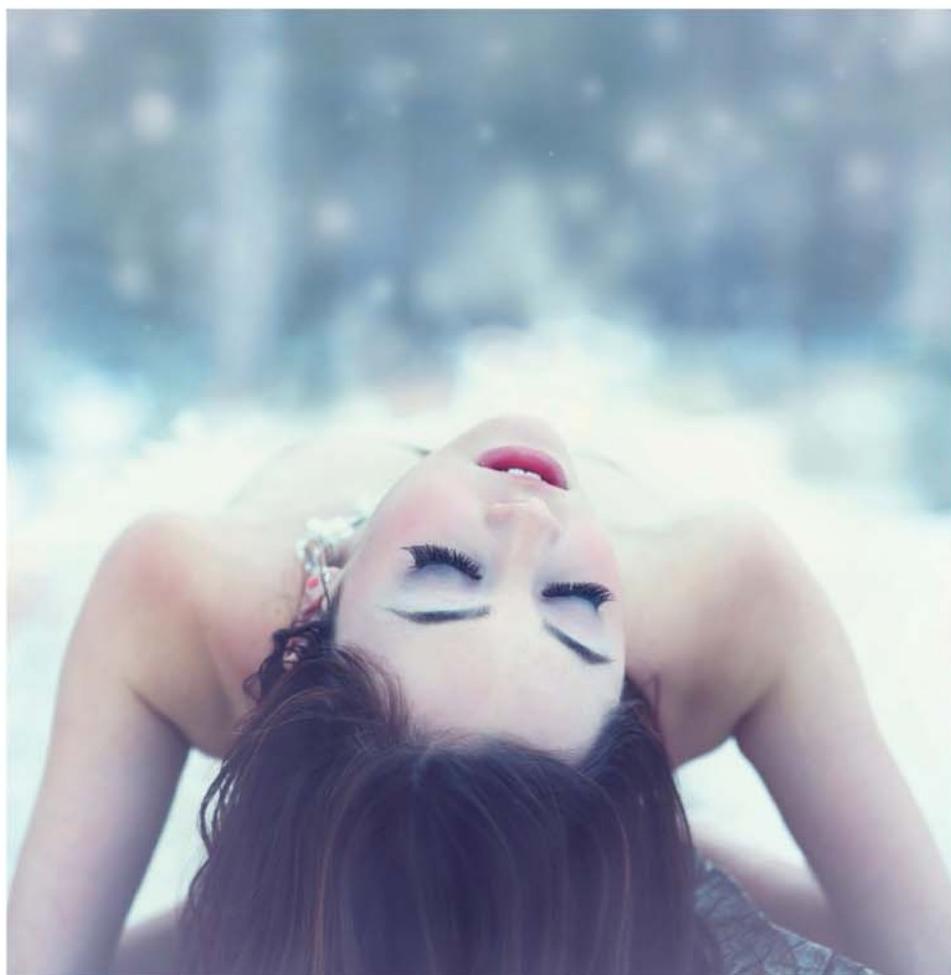
## **Icy dawn**

by Lorenzo Riva

[www.facebook.com/LorenzoRivaPhotography](http://www.facebook.com/LorenzoRivaPhotography)

(Right) "The image was taken on the black sand beach at Jökulsárlón in Iceland just before sunrise. The most difficult part about capturing this was anticipating the size of the incoming waves and timing my shot just right."

Nikon D800 with NIKKOR AF-S 16-35mm f/3.5-4.5G lens.  
Exposure: 1/2sec at f/16 (ISO 100).







## Valensole

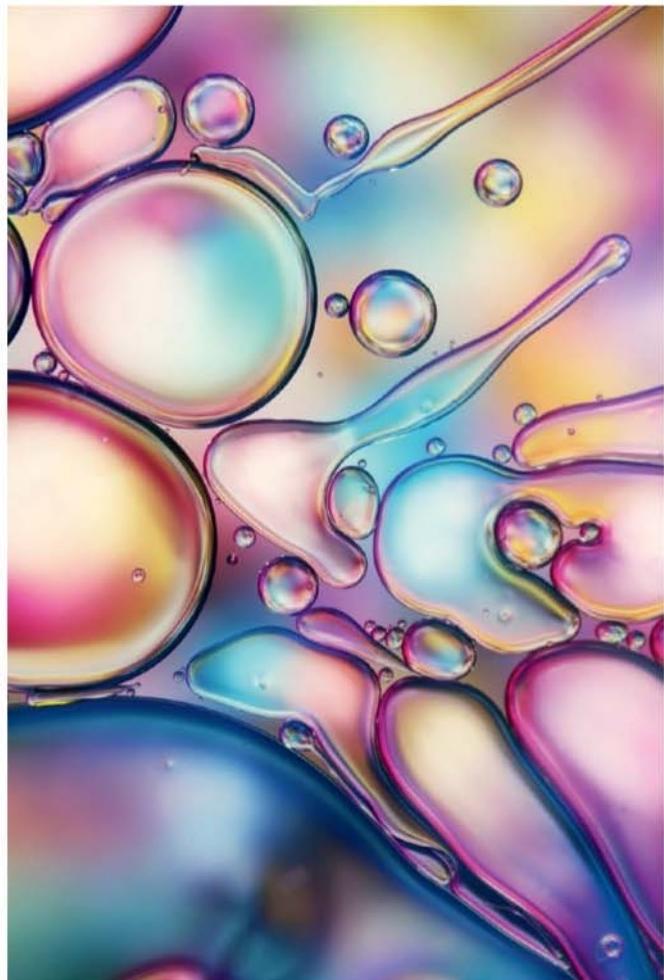
by Julien Delaval

[www.500px.com/JulienDelaval](http://www.500px.com/JulienDelaval)

"Taken in Provence, France, in an area blessed with beautiful lavender. Comprised of two exposures, one for the sky and one for the foreground. This image was taken with a 0.9ND grad and a polarising filter. I then blocked the sun with my finger on one exposure to reduce flare."

Canon EOS 6D with EF 17-40mm f/4L USM lens.  
Exposure: 1/100sec at f/8 (ISO 100).





### **Dandelion Starburst** by Sharon Johnstone

[www.sjfinearts.com](http://www.sjfinearts.com)

(Above left) "Dandelion seeds are my favourite subject to photograph – I love how water droplets sit on the individual seeds. In this image I wanted a fairly shallow depth-of-field to blur the background and achieve a pretty bokeh effect. The dandelion seed was sprayed with a fine mist of water and shot against a blue background."

Canon EOS 7D with Canon EF-S 60mm f/2.8 Macro USM lens. Exposure: 1/250sec at f/7.1 (ISO 125).

### **Rainbow Bubble Splash** by Sharon Johnstone

(Above right) "The set-up for this shot is a glass of water with a little olive oil and a few drops of washing-up liquid in. The washing-up liquid stops the oil from flattening out. I set the glass on a colourful background and used an aperture of f/14 to get the bubbles in focus. I added some extra contrast in processing to make the colours pop."

Canon EOS 7D with Canon EF-S 60mm f/2.8 Macro USM lens. Exposure: 1/250sec at f/14 (ISO 100).

### **Geranium Candy** by Sharon Johnstone

(Left) "I photographed this geranium against a multi-coloured piece of card. I love the stamens of this flower, especially when they open to reveal colourful little bursts of yellow. I used an extension tube to gain extra magnification and chose a mid-aperture to capture some of the stamens in focus and blur the rest, including the background."

Canon EOS 7D with Canon EF-S 60mm f/2.8 Macro USM lens. Exposure: 1/250sec at f/8 (ISO 125).

### **Red** by Dmitry Trishin

[www.500px.com/tdum](http://www.500px.com/tdum)

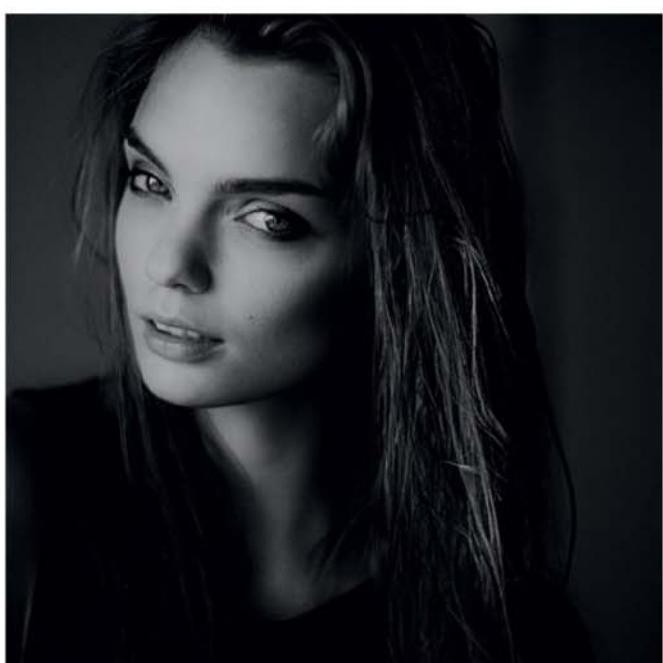
(Right) "This was taken using only natural light. The focal length is perfect for close-crop portraits such as this, and shooting at a wide aperture locks the viewer's gaze on to the model's eye. I asked the make-up artist to match the colour of the model's lips to her hair; the red contrasting perfectly with her green eyes."

Canon EOS 5D Mark II with EF135mm f/2L USM lens. Exposure: 1/500sec at f/2 (ISO 200).



# Portfolio





### **Freckled girl** by Marta Syrko

[500px.com/syrko](http://500px.com/syrko)

(Above) "This was taken in the centre of Lviv in Ukraine. It was the middle of the day, so the light was direct and harsh. Although usually not ideal for portraits, I really like how it works in this image. The main difficulty here was avoiding crowds when shooting in the city!"

Canon EOS 5D Mark III with EF 35mm f/1.4L USM lens. Exposure: 1/8000sec at f/2 (ISO 640).

### **Portrait of a girl** by Marta Syrko

(Left) "This was taken by a window in my apartment on an overcast day, so the light was perfect; soft and diffused. By turning the model's head towards the window, the light wraps around her face nicely. This girl is very attractive so it wasn't hard creating a beautiful portrait!"

Canon EOS 5D Mark III with Helios 40mm f/2 lens. Exposure: 1/3200sec at f/2 (ISO 1000).

### **On the edge finally** by Dave Fieldhouse

[www.davefieldhousephotography.com](http://www.davefieldhousephotography.com)

(Opposite) "The forecast looked good for this particular evening, so I headed up to Stanage Edge in the Peak District to catch sunset. By halfway the sky was thick with cloud. I continued and by the time I was in position the clouds broke, giving me exactly what I was looking for."

Canon EOS 5D Mark III with Canon EF 16-35mm f/2.8L II lens. Exposure: 1/25sec at f/11 (ISO 400).

**Clint Burkinshaw**



Tham Phu Kham cave, Laos:  
shot with a Sony NEX-7; 1/50sec;  
f/4; ISO 800; 19mm lens

# Call to adventure

South Australia's **Clint Burkinshaw** went from point-and-shoot snapper to international travel photographer in the space of a decade. His taste for adventure and skill with a lens have certainly set him down an exciting path. The trick now is to stay inspired...





I'm a 31-year-old travel photographer from Adelaide. I grew up on the coastline, engrossed in sport and the beach. In early 2005 I turned to a map of the world to see what else was out there, and once I set foot off Australian soil for the first time, there was no turning back. I was addicted. Since then I've visited and backpacked through 66 countries and don't plan on stopping. With my combined passion for both travel and photography, I've been very lucky to have the chance to experience some magical moments and mind-blowing scenery. Much of my spare time now is dedicated to bringing these experiences to the public. Not just my travel photography but also the moments behind them.

When I don't have my camera in hand, or I'm not plugging away on the laptop or looking at a world map in some random country, I'll likely be surfing my local break

### **“Once I set foot off Australian soil, there was no turning back. I’ve visited 66 countries and don’t plan on stopping.”**

or having a few beers with friends. It's a nice release from the photography/travel world, which I think is important to keep everything fresh and stay inspired.

#### **The beginnings**

I got my first Canon point-and-shoot back in 2005, when I left Australia for the first time to backpack around Europe. At that stage I didn't really know what was to become of it, but taking photos of these faraway locations seemed to really resonate with me. It wasn't until a year-and-a-half later – when I was backpacking around South America for 12 months – that I realised I'd found a new love: travel

photography. It was a perfect match for the new life I'd stepped into. I immediately bought an APS-C Canon 40D with a Tamron 17-50mm f/2.8 lens and have been crazy about capturing unique scenes ever since. These days I now shoot the majority of my shots with my beloved Sony A7r paired with a Zeiss 16-35mm ultra wide lens to capture those beautiful landscapes. It's by far my favourite combo. Though I can't help but switch to a nice 75mm prime for culture-based shots, which is my go-to for street photography.

Looking back, one of my first photographs I remember looking at and proudly thinking, "Now that's something



Tat Kuang Si Falls, Laos: shot with a Sony NEX-7; 1/4sec; f/10; ISO 100; 19mm lens



Gorilla in Uganda: shot with a Sony NEX-7; 1/60sec; f/2.8; ISO 100; 50mm lens



Erta Ale, Ethiopia: shot with a Sony NEX-7; 30sec; f/6.3; ISO 100; 10-18mm lens

I could hang on my wall," was a shot from some very old ruins called Ciudad Perdida (Lost City), in Colombia's Sierra Nevada jungle. These ruins had unique, circular pod-like stone structures, enshrined by the jungle and embedded on the side of the mountain. My shot had these structures fading away upwards into the distant mist as it slowly covered the valley.

### The lessons

Everything with me has been self-taught. Well, when I say "self-taught", I mean endless hours on the computer educating myself, from reading books, watching videos both on fieldwork and post-processing, to studying countless photographers' work I admire. Slowly journeying down the never-ending road of figuring out what turns a good photo into a spectacular one. Of course, none of this matters unless you go out

and practice the things you've filled your head with, and this is where the real learning (and patience) takes place!

Landscape photography is what does it for me. I find that when I gaze upon a quality landscape photograph with mesmerising scenery, the perfect light, composition and processing, it's absolutely transcendent and sends me into another world. The only thing better than this is to be there for real, depressing that shutter release button while gazing upon that enchanting scene unfolding in front of your own eyes. Absolute magic!

The urge to bear witness to Earth's greatest landscapes and encapsulate them in time has sent me to all corners of the globe, from jungles to snow-capped peaks, remote islands to deserts and volcanoes to glaciers. It's inspired me to continue that never-ending search for the next adventure.

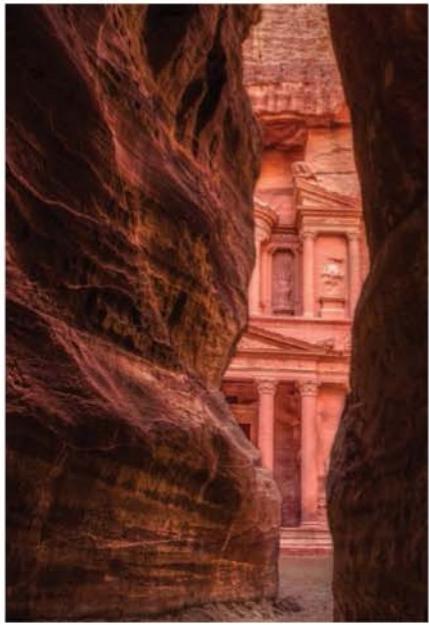
### The approach

Being a travel photographer, it's often hard to be prepared at times, but that doesn't stop you doing all you can, when you can. On many occasions with travel photography, especially when you're exploring a country, city or landscape that you've never been to before, you often have no idea what's around the next corner. So scenes can often surprise you, and it's my role as a travel photographer to capture it as best as I can.

To maximise my chances of capturing a scene, it's important I know my equipment like the back of my hand. This means instantly being able to modify my camera's settings, both software and physical, without having to think about it. It also means knowing exactly what my setup is capable of and how far I can push it.

However, often there are times when I can prepare most aspects of my shoot. Those times, if it's a landscape, I'll often start

Perito Moreno, Argentina: shot with a Sony NEX-7; 1/640sec; f/8; ISO 100; 50mm lens



City of Petra, Jordan: shot with a Sony NEX-7; 0.3sec; f/8; ISO 100; 10-18mm lens

with the trusty Google Maps and Images to initially scout the location. These are great free tools every photographer should be using – fantastic for first impressions and helps you get to know the environment you'll be walking into. I also may use applications like TPG to suss out light direction if need be. Once on-site, the on-ground scouting commences. This is basically searching for compositions

## ***"Light is very important, and often is the difference between a good photo and a great one."***

to match foreground with background. I'm a big fan of a striking backdrop, so I naturally already have these picked out and the on-ground scouting is generally a search for a foreground to complement the background. If time permits, I'll shoot during golden hour (or just after) to get some really warm colours and (fingers crossed) a striking sky.

I shoot everything in RAW and will import all the keepers to Adobe Lightroom for its excellent cataloguing features. I also do my basic RAW processing, initial sharpening and noise control in Lightroom before exporting to Adobe Photoshop, which I use to combine any multiple exposures, and to finalise the image with a little more finesse and localised control.

### **Developing good habits**

Landscape photography would have to be one of the most difficult forms of photography. It's unforgiving, and you can often walk away from the scene quite intimidated. Even the most experienced photographers get beaten from time to time. With this in mind, some of the best advice I can give for someone attempting to shoot landscapes is:

**Be prepared.** Scout your location before

you go, whether via Google Maps or on foot before it's time to shoot. This also means being prepared with appropriate clothing, as photography can be very brutal in certain conditions. In addition, get to know your camera equipment, as conditions can change rapidly and you need to know how to adjust accordingly.

**Practice your composition.** It's very unlikely you're going to be completely happy with your first composition, so use your feet and move around. When people ask me "what's the best thing I can do to improve my photographs?" I generally tell them my 20-second rule. Before you just take that photograph, spend at least 20 seconds looking around the immediate area for a more attractive shot, rather than take it standing where you are. This is obviously aimed at the beginner, but the theory applies to everyone. Don't be afraid to spend time looking around to frame your shot better, as in my book composition is everything.

**Correct exposure.** Your camera's sensor simply doesn't handle light like our eyes can, so exposure is something you have to take quite a lot of care with. Be mindful of the light and dark areas of the scene in front of you and expose your image to capture it accordingly. A lot of time when you're out



Elderly Hindu man, India; shot with a Sony NEX 7; 1/4000sec; f/1.8; ISO 100; 50mm lens

shooting, the amount of light entering your lens will simply be too varied for your camera's sensor to handle. So remember your friend the histogram, and if it looks like you're going to need multiple exposures to cover the scene's dynamic range, set yourself up to do so in order to save yourself any blown highlights and sunken shadows.

**Wait for the light.** Light is very important, and often is the difference between a good photo and a great one. Most landscape photographers will shoot in the golden hour, and there's a really good reason for this. Colours just pop, and everything is awash in soothing, warm tones. Also, if the clouds are just right, the sky will light up with beautiful burnt colours and be the icing on the cake for your photo.

**Safety first.** Many times have I ignored my own advice and come off injured, and once or twice nearly paid the ultimate price. From being washed and dragged across sharp coral reef in Costa Rica, nearly falling down a waterfall in Laos, to getting slammed by an extremely heavy wave in South Oz that nearly threw me down a 20m cliff face. All because I didn't bother observing my surroundings adequately first. So please be safe and monitor all conditions properly before you start shooting.

## Shortcuts to success

For photographers who are more in the early stages of their photographic journey, there are simple things you can do to help your progression:

**Seek photography critique.** I think critique is one of the best ways to learn and progress your photography career. Sit down and really analyse what you do and do not like about your photographs, and don't be

## Clint's Five Worldwide Favourites

This of course is one of the hardest questions for me to answer. There have been so many magical places, and so many rewarding moments. But I'll give it ago!

**1. Patagonia:** Straight up I'm going to say this majestic place. Specifically the mountain groups Torres del Paine and Fitzroy. Things are different down there at the end of the world. The windswept landscapes are ruled by grass and shrubs, where the trees that do grow do so at 45-degree angles. Patagonia packs a punch when it comes to the environment, and is something you shouldn't venture into unprepared. The winds ravage the land, sea and mountains. The winter is harsh and cold, with little light and long hours of darkness. But the summer sun is soothing, with crisp and refreshing air, and daylight hours reaching close to midnight. Those who put in the effort to reach here will be rewarded with an experience of some stunningly unique mountain-range views that will stay with you for life.

**2. Iceland:** Well, anyone who's seen photographs of Iceland immediately understands why. Every landscape photographer would kill to shoot this place. Alien-like landscapes regularly change from iceberg lagoons to volcanic beaches, luminous glaciers to waterfall-filled canyons. Combine that with the magic of the Aurora Borealis overhead and you have the landscape photographer's dream!

**3. Northern Africa:** It's rare to get more unforgiving places than this part of the world. From getting toasted on the dunes of Tunisia to

being crisped among the streets of Marrakesh, frying while exploring the remote and exotic pyramids of Meroe in Sudan, or photographing what's dubbed "the cruellest place on earth" inside the Danakil depression that borders Ethiopia and Eritrea, you will come away with some unique photographs, both cultural and landscape. To get some of my shots I've hired private armed militia, slept deep in the desert, been escorted by military transport, befriended and stayed in local houses and more. Some enriching, some dangerous, some uncomfortable, but all very much worthwhile.

**4. India/Myanmar:** I'm going to throw both of these places in there, purely because out of everywhere I've been, these would have to be among the most interesting locations for street photography. In both of these countries you're constantly bombarded with a very different cultural scene that's always enriching your senses. Though be prepared to be uncomfortable as infrastructure isn't always the best and you're going to have to get down and rough it a bit. Well, a lot! But you'll come away with some brilliant cultural and street photography, and a memorable experience.

**5. Himalayas:** If you like mountains, you can't get any grander than this. Hosting every single one of the world's highest mountains, this is a place where you are literally dwarfed by the scenery. You can visit all the snow-capped peaks you want, but your jaw will never drop as much as it will when you're scanning your eyes across a panoramic vista of the world's highest peaks. The beauty. The enormity. It truly humbles you.



Sunset over Willunga, South Australia: shot with a Sony NEX-7; 1/60sec; f/10; ISO 100; 10-18mm lens



## **“Get to know your equipment like the back of your hand and I promise it’ll do wonders for you in the field.”**

afraid to seek public critique. Avoid loved ones and friends, though – their advice is generally biased and isn’t what you need to hear to improve your photography. Join forums, paid or unpaid, and ask for honest, constructive feedback.

**Don’t let a bad run get the better of you.**  
Even the best of us get in a photography rut. Don’t worry about it; it’s only temporary. Have a small break and go back to basics and concentrate on what you really enjoy about photography. Use this to drive your creativity and your mojo will return before you know it.

**Don’t go for the most expensive kit.**  
“You must have a good camera” is one thing I always hear from people once they see a nice photo of mine. This attitude seems to be the standard perception on what’s needed to create a winning image. It couldn’t be further from the truth. Quite a few of my photos that people often like are from 2008, from the first time I was in South America – all of which were taken on 5 and 7 megapixel point-and-shoot cameras. Yet, because I took care in composition and putting it together in post, the common conclusion about equipment is, unfortunately, mostly the same. But I’m here to tell you that you do not need expensive equipment to get good photos. Get the equipment that suits your needs and budget, then go from there. A good

photograph is going to come from creativity and experience, not equipment. Your money would much be better spent on training materials than the very latest equipment.

**Never get side-tracked from your goal.**  
Photography is an art, and for you to be the best artist you can be, the art you produce has to come from within. That

may sound a bit lovey-dovey, but the basic message behind it is true. While you can (and should) take inspiration and advice from those whose work you admire, especially to up-skill, don’t forget what it is that you love about photography and what got you into it in the first place. This is the best way to keep your passion for photography alive.

**Take pride in your equipment.** This can be taken a few different ways. Firstly, I’ll talk about in the physical sense. Cameras these days are generally built quite well, and the higher-end bodies and lenses are also





Lalibela, northern Ethiopia: shot with a Sony NEX-7; 1/50sec; f/1.8; ISO 100; 50mm lens

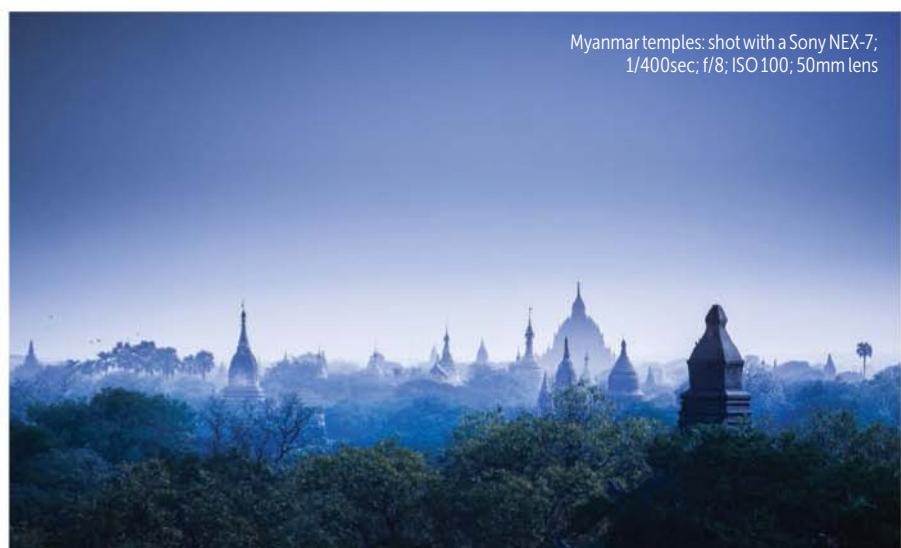
weather-sealed. However, you need to take pride in your equipment and take proper care of it. The better you treat your camera, the better it'll treat you!

The second sense is that you should take the time to get to know your camera. The more you understand what your equipment can do, the more you'll benefit in the field. Get to know all the controls, as well as the limits of what both your camera and lens can and cannot do. This will prevent you from missing that magic moment that just passed you by. Get to know your equipment like the back of your hand and I promise it'll do wonders for you in the field. Best of all, the biggest difference it will make is in your final image.

## Clint's top Australian spots

Thanks to the last several years of international travelling, I've actually been humbled as to the spectacular scenery we have right here in our own backyard. And while Australia has much, much more to offer, it's my localised area that intrigues me the most for now. I've spent so much time abroad that I've missed many opportunities to photograph the Australia that I know, and currently I'm undergoing a project to document the many places many of us take for granted.

A few special places I'd like to mention: the local beach I grew up on, where the bedrock dates back 600 million years, with boulders scattered along the beach left over from the glaciers in the Permian Ice Age around 280 million years ago, when Australia was part of



Myanmar temples: shot with a Sony NEX-7; 1/400sec; f/8; ISO 100; 50mm lens

the super-continent Gondwanaland; another is exploring the Yorke Peninsula and its variance of landscapes and rugged coastlines; and the southern Fleurieu Peninsula that's full of rolling hills and dynamic coastlines is always a joy to discover.

Looking ahead from this, I plan to extend these goals and travel further out to capture the Kimberley region and the drama and rich reds that make up the Australian outback. The tropical far north, the Blue Mountains, rainforests, vast deserts and rugged coastlines around Australia – all of these are on the longer term cards, and I can't wait to begin encapsulating this vision of Australia.

## The end game

There are quite a few photography projects I'm planning to undertake in the coming years, all of which will be revealed in due time. However, with regards to a very long-term goal, I guess that "goal" is to make the transition of turning my photography affection into something that can be done permanently on a full-time basis, and make a living from the very thing I feel most passionate about, capturing this world!

To see more of Clint's work and to follow his worldwide adventures, check out [Explosiveaperture.com](http://Explosiveaperture.com)

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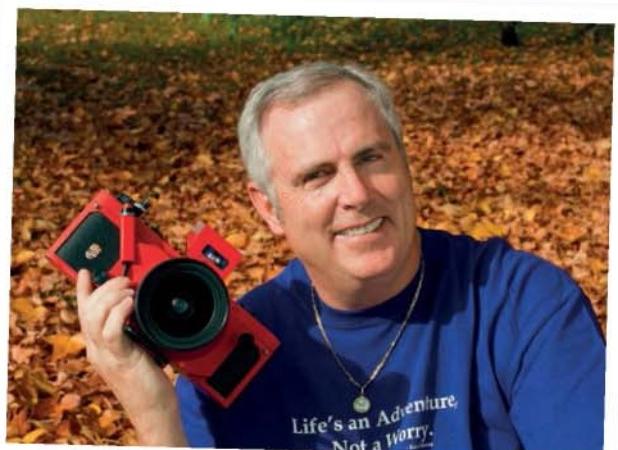


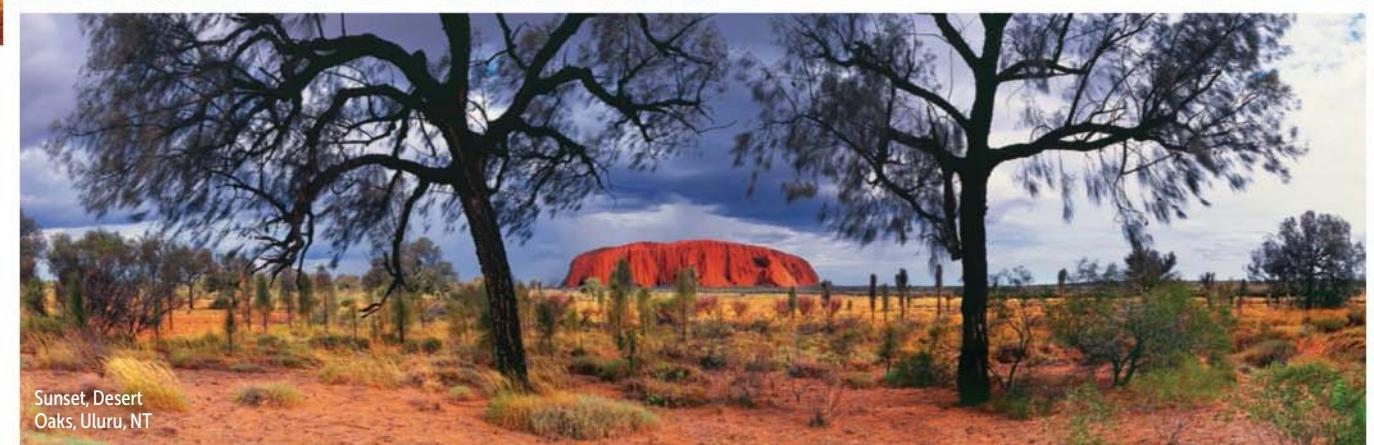
Organ Pipes, Glen  
Helen Gorge, NT



# Chasing the Light

In this exclusive extract from his latest book, *Chasing the Light: Australia Wide*, landscape legend Ken Duncan mixes advice with inspiration, so that we all might leave a meaningful legacy behind.





Sunset, Desert Oaks, Uluru, NT

Much of my life has been spent "chasing the light" one way or another – whether capturing photos, or the more esoteric interpretation of seeking illumination through life's many twists and turns. Photos are frozen moments of our lives. Looking at them, we can be transported back to the depicted place, person or experience. Leaving a legacy of recorded thoughts and pictures may provide those who come behind us with a better understanding of our lives, as well as their history.

Photography is now one of the world's favourite pastimes. Since the advent of

digital technology, image making has grown at an exponential rate and it will not slow down. With the widespread use of compact cameras and smartphones, we are capturing trillions of images. In the past year, the amount of digital information stored in the world has doubled and I believe this trend will continue. Now that's a lot of hard drives in use (or whatever other storage media we move to). I remember when we were told that the big advantage of digital photography was that we would no longer have to buy film. However, the digital advocates forgot to warn us about the ongoing expense of hardware, software and digital storage media that we have to replace every 3-5 years.

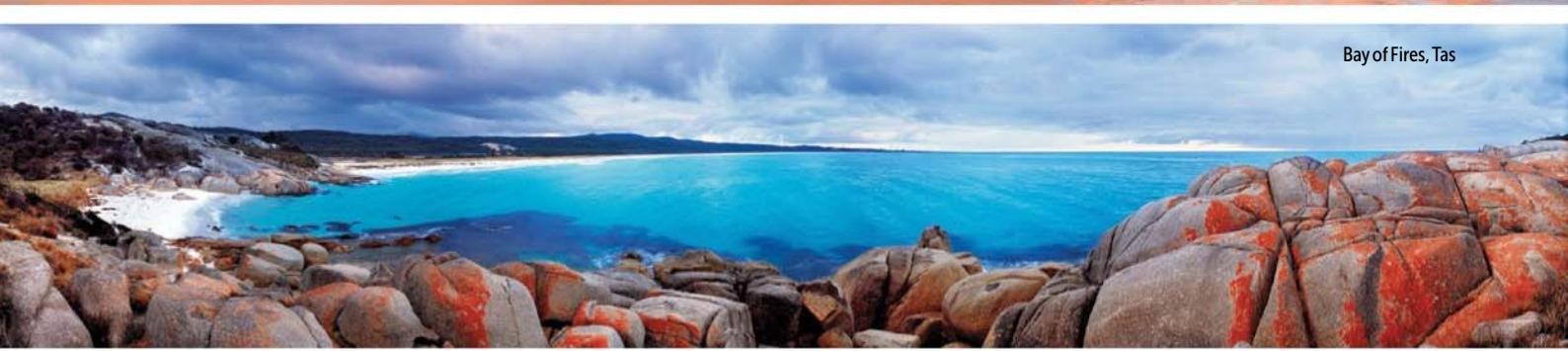
So has this huge growth in image making improved our ability to tell our stories, or improved the quality of those stories? We take so many photos, but I wonder how we will be remembered by future generations. Will it be with low-level "social media" images housed in cyberspace? Or will we tell our stories well – with beautiful pictures preserved on archival media for future generations?

We have already seen many digital storage mediums come and go. If your earthly story is contained on an array of hard drives, future generations may have a real problem. People will probably wonder what those ancient devices are and how they can access the information on them.

Glass House Rocks,  
Narooma, NSW



Bay of Fires, Tas



How will they view your photos? How will they know about the people and events depicted? My desire, through Chasing the Light, is to try and help people tell their stories well. Every individual has purpose; everyone has something of value to share. Let's try to leave a worthy record of our lives for future generations.

## **Sharing the Journey**

When sitting on the top of a mountain, or relaxing by a refreshing stream, I find it easy to be at peace. I love that part of my job, as it allows me time to filter my thoughts and feelings as I wait for sublime moments.

However, the real test of equilibrium comes when I arrive home. The return to civilisation can be anything but civil. I'm often bombarded by emails, phone messages and an overflowing in-tray. I know it is when under pressure that our true character is revealed, but sometimes I fail the pressure test. Sitting on mountains – no worries; dealing with mountains of stuff – I'm still working on it. Hopefully, like good red wine, we all improve with age.

For me, photography is more than just a profession. It is a way of looking at the world; a series of opportunities found and lessons learned. It parallels life in many ways. When capturing images, we have the option to delve beyond the obvious. We can explore numerous angles and look at things in different lights. If we change

***"If we change our perspective, we can often see a landscape differently – just as when we look at life from a different angle"***

our perspective, we can often see a landscape differently – just as when we look at life from a different angle. Photography can also be a lot like mining diamonds; you often have to move huge amounts of dirt to uncover the gems. I have worked on some shots for years before finding the real treasure. Some images I'm still working on. Waiting for a divine opening to create a magical moment of light can really develop patience – a valuable character trait.

Above all, I believe life can be – and should be – an adventure. We can learn many lessons from the challenges we face along the journey and I think it's important that we record our journeys. The testimony of our journeys may be of help to others in the future. Or perhaps the simple act of looking back will remind us of past lessons long forgotten.

I am passionate about sharing my love of photography, as it is a wonderful way for people to record their life experiences. As you enjoy your life adventure, I encourage you to look beyond the obvious. Take time to delve a little deeper, explore below the surface and discover all that can be revealed. Use photography to document your milestones and the

nuggets that significant people have added to your life.

I have discovered that meaningful photos usually come at a cost – that of opening our hearts to the world around us. However, we are not in this human race to see who will win. Life is really a quest to see how many we can help along the way.

## **Looking Beyond**

If you really desire to take big photos, it is helpful to connect to the bigger picture. We are taught from an early age that we must take control of our lives. While this is true to an extent, we should also be open to outside influences. Let's consider the concept of control. Here we are on planet Earth, hurtling through space at 108,000km/h and – just to add interest – we're also rotating at about 1700km/h. Surely it's a bit presumptuous to think we can be in total control of our lives.

It takes courage to look beyond our own fixed views and be open to the possibilities that surround us. Not everything is good, so we need to be discerning. A good safeguard is to let peace be your guide. In our hearts we know right from wrong. If you have no peace about a certain direction, don't go down that road. If it is

**Ken Duncan**



Bird River, Tas



Protestors Falls, Nightcap  
National Park, Qld

Sunrise, Haasts  
Bluff, NT



Reggie's Hut,  
Burra, SA



meant to be, opportunities will arise, even though you may have to push hard on some doors.

As I travel through life, I am aware of many influences around me. It can be a snapshot I see in my mind, something a person says or – dare I say it – a voice that tugs at my heart. I can ignore those signals if I want to – and I often do. My saving grace is that sometimes I do listen. I call this experience “entering the zone”.

My wife brought this phenomenon to my attention one day when she was suggesting we needed a holiday. I pointed out that we had visited a host of exotic locations together, but she said while I was there in body, I wasn’t there with her. I felt quite indignant. However, she wasn’t being critical – just trying to help me. She said when I became focused on my photography I entered into my own zone, always looking for a shot – thinking of the weather, the moon, the tide or whatever. I realised she was right.

When I go photographing, it takes at least a day for me to get my senses re-attuned and to feel connected with my surroundings. I can usually only be in that intense state of concentration for about three weeks. After that, sensory overload tends to kick in and I find it difficult to appreciate the nuances of what I’m seeing. I love operating in the zone but I do have to be conscious of friends or loved ones with me on the journey. I have now learnt how to switch in and out. Sometimes life is like a highwire balancing act and I thank God for the safety net of friends and family.



### Never Give Up

The best piece of advice I can give anyone is, "never give up"! It's a reminder not to give up hope; to have patience while waiting for your breakthrough. It can also have a profound effect when applied to photography. Some people have more innate patience than others, but it is a trait that can be learned. If we do not learn patience, we may become a patient – through stress.

Life does present serious pressures that can take real strength to deal with. In the face of great adversity, all we can do is hang in and give it our best shot. But some pressures are of our own making – when things don't go as we had planned or when we encounter obstacles. These are the pressures I would like to deal with well – for instance, people driving too slowly in front of me! I'm sure they do it just to frustrate or test me as I strive to develop patience on the highway of life.

This type of frustration can occur in photography as well. You may have spent hours on a beautiful beach waiting for just the right conditions for that special shot and, at the critical moment, someone spoils the photo by getting in your picture. It could be a fisherman, a surfer, a swimmer, someone walking their dog, or a fitness fanatic. Or perhaps a Tai Chi devotee attempting – ever so slowly – to achieve oneness with the universe, right in the middle of the shot you had planned. "Hey," you cry, "I'm part of the universe too – and I was here first."

Then there are other factors; tide, waves and weather; which camera; which lens; is

### **"Your legacy for future generations can be a timeless journey, told through beautiful images and meaningful stories"**

this the right spot, or even the right beach? It's not easy trying to deal with all these variables swirling around us. All manner of things can go through your mind while trying to create that elusive image. When you feel the pressure mounting, that is the time to slow down and look for the significance of what's happening around you. Don't be driven by the circumstances. Be prepared to let go of why you think you are in that place. Frustration and pressure often come simply because we feel things are not going the way they should. Perhaps there is a bigger picture in the making – the winning shot you really need to be taking.

Maybe that TaiChi enthusiast you wanted out of your shot was really an important element to give your photo scale. Or, when you are about to pack your gear away because of a little rain, perhaps a rainbow is about to follow.

So, what are the lessons? Slow down, never give up and stand your ground until the fat lady sings.

### **Preparation prevents desperation:**

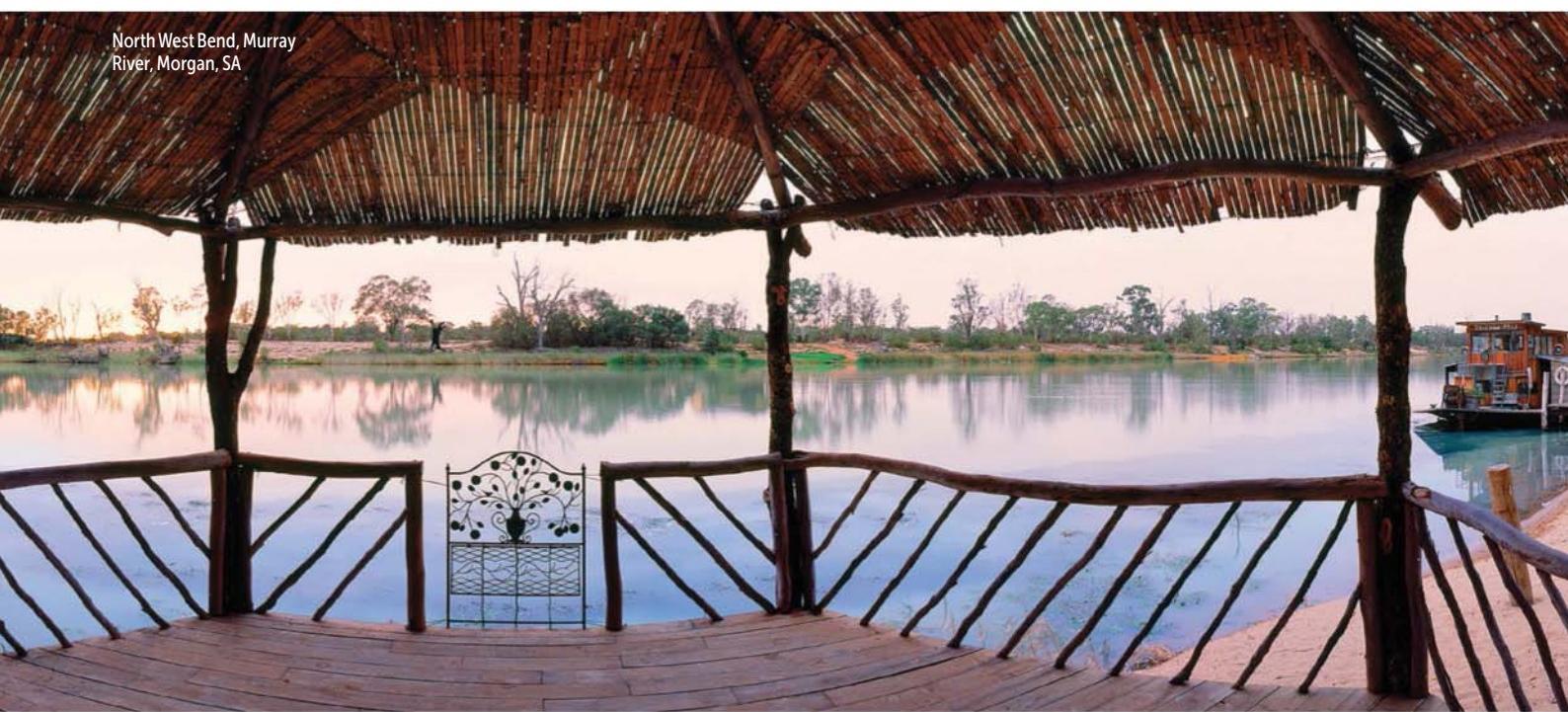
With the advent of digital photography, life was supposed to become easier. But now you can lose your entire photographic history in mere seconds. Whether through human error or hardware failure, it is a truly sickening feeling when you realise

you have just lost photos. (I find it almost poetic that the abbreviation for digital asset management is DAM.)

Here is the process I have developed over the years to manage digital assets well:

1. Always use good quality memory cards because if you have corrupt images, you have nothing to save.
2. While travelling, you need at least two backups of your images. Some people use memory cards as one of the backups but that's expensive, especially if you are shooting in RAW format and also taking videos. I recommend travelling with a small laptop and two portable hard drives – ideally 500GB to 1TB capacity. Don't save images on your laptop or it will slow down. Just use it to transfer images onto your portable hard drives for storage. Think of your laptop like a train station. Images come in and go out to other destinations on your portable hard drives; they don't reside at the station.
3. Use Finder on Mac or Explorer on PC to transfer your image files. I don't recommend using the program that comes with your camera, as you need to ensure all files from your memory cards are transferred into the designated folders on the hard drives. Back up all files onto both drives and carefully check the backups before reformatting your memory cards.

North West Bend, Murray River, Morgan, SA



Store the drives in separate locations in your luggage. That way, if one is stolen you still have a copy. If you work on files while on the road, put them into a folder called "worked files" and duplicate that folder on both hard drives.

4. When you return home, download all the files from your trip off one portable hard drive onto a network-quality raided (Raid1) backup system. Do all your editing, deleting and cataloguing on that raided drive (which is automatically creating a copy of everything) so all your image files are in the location you want them. This is the minimum level of safety you should have. When shooting

around home, you can download your images directly onto this raided backup.

5. For added safety, clone that raided drive onto another raided (Raid1) drive as a second backup and store that second drive in a separate location. This essentially gives you four copies of your work. You can then delete all images off the portable drives, ready for another adventure. You will sleep well knowing that your babies are as safe as they can be in this digital world.

## Timeless Journey

Photography is a wonderful medium that allows us to document significant

moments. In years to come, when we look back on events in the world, in our nation or even in our homes, we will realise just how many pictures are etched into our minds that take us back to special moments. If I mention Marilyn Monroe, the picture that comes to mind is the one of her in New York, laughing as her white dress billows up around her. When thinking of iconic Australian photos, Max Dupain's black and white Sunbaker image will leap to the forefront of many people's minds.

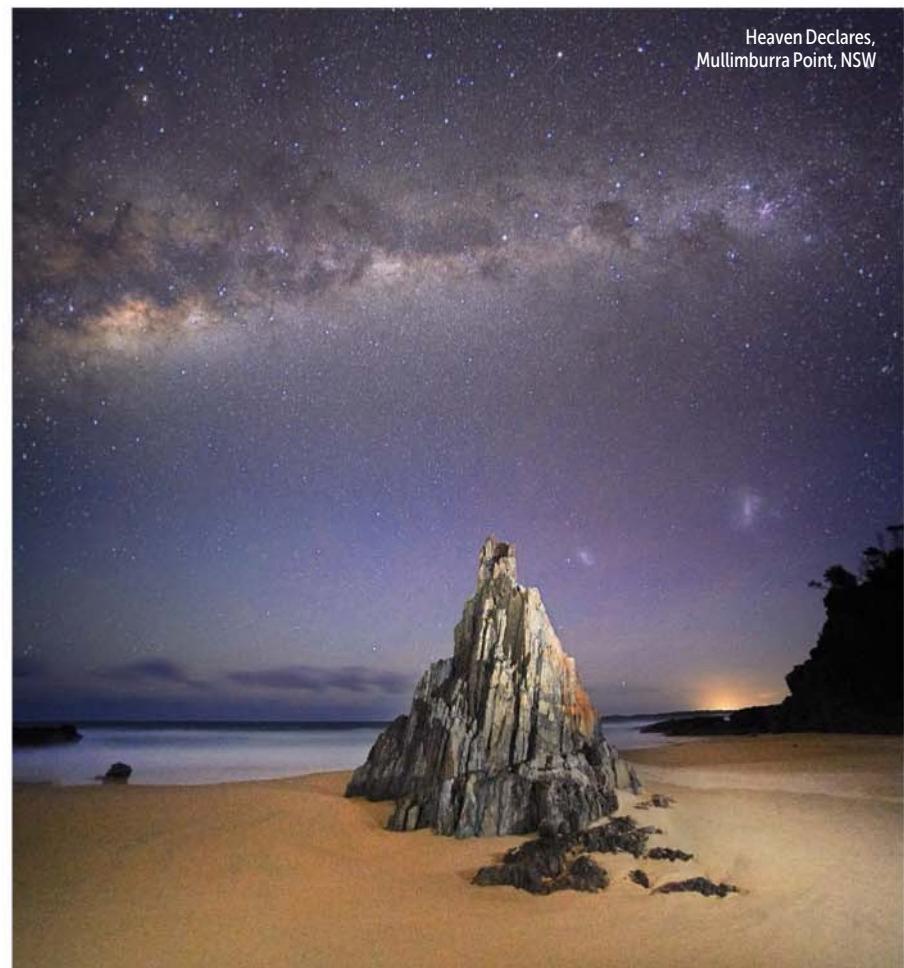
One of my personal home classics is of my sister and me – aged eight and six – waving goodbye to Mum as we left home. We only made it to the front gate,

Golden Grove,  
Omeo, Vic.

where we were stopped by Dad for a photo, before we decided home was pretty good after all.

Over the course of their lives, most people will take thousands of photographs. But what becomes of them? In many ways we have become lazy, rushing onto the next picture, often sacrificing quality for quantity. We believe a "happy snap" shot on a phone will do. I doubt many of those pictures will make it into the halls of fame.

When my parents passed away, I created a multi-media presentation to honour each of their lives. Fortunately they had photo albums, which made it relatively

Heaven Declares,  
Mullumburra Point, NSW

## ***“Over the course of their lives, most people take thousands of photographs. But what becomes of them?”***

easy to source the pictures. It was a marathon but also a great experience, as I re-lived many aspects of my life. Now those presentations exist as precious records for future generations.

So how can you ensure your life's journey is well remembered? Firstly, manage the photos you already have. The longer you delay, the harder the job gets. Sort out the most special shots and produce archival prints. Then put those into archival quality albums, with a short story about each shot. (This could be a big help in your twilight years, especially if you develop memory problems.) A variation of this is to record your adventures in photo books. Just make sure you opt for an archival book, so your images won't fade away.

Secondly, have some beautiful archival prints produced of your family's adventures and hang them in your home. If you choose images that tell your story well, the walls of your home can become a gallery that documents your journey.

Thirdly, ensure your special photos are also stored digitally, on the latest storage devices, in files that can be easily read by any computer.

When your time comes to leave this planet, you don't have to leave behind a mass of digital media spread all over the place that may not even be readable. Your legacy for future generations can be a timeless journey, told through beautiful images and meaningful stories.

For more of Ken's work and to order copies of *Chasing the Light: Australia Wide* (\$49.95), visit [KenDuncan.com](http://KenDuncan.com)

**Ken Duncan**



*Chasing the Light*  
AUSTRALIA WIDE

Renaud Marion

# Air Drive

Like many of us, French photographer Renaud Marion figured we'd all be knee deep in flying cars and jetpacks by now. His fascinating Air Drive collection is just his way of bringing that futuristic dream to life...



Main image: Porsche 356 shot on the streets of Paris for Renaud Marion's Air Drive series. Top right: Mercedes 300SL Paul O'Shea, also shot in Paris.



**C**urrently exhibiting in Geneva in an art space dedicated entirely to Mechanical Art Devices (the M.A.D Gallery), 39-year-old Renaud Marion's Air Drive collection is billed as "a retro-futuristic photographic series of flying cars". Taking cues from his childhood imaginings and inspired by science fiction films and artists, Marion depicts his vision of futuristic transportation of wheel-less cars serenely suspended above the ground. But he has included a neat twist: while the vehicles' levitation most definitely smacks of sci-fi, the cars are in fact modified vintage classics, including Chevrolets, Mercedes, Jaguars, Aston Martins and Porsches.

The images that emerge are a throwback blend of retro-style with futuristic imaginings. Iconic cars from the glory days of automobile production are transformed into airborne transport, catapulting their vintage design into a visionary age. The pictures are really quite surreal.

Growing up in the 1980s, Marion thought that by the year 2000 everyone would be piloting flying cars, like the landspeeder from *Star Wars* or the futuristic soaring machines from French artist Moebius. Marion's dream of one day propelling a floating vehicle has not yet become a reality, but in this series he has brought to life the "hover" vehicles of his childhood fantasies. "As a child, I imagined the new millennium with flying cars, spaceships, parallel worlds, extra-terrestrials living with us on Earth and time travel," he says. "We would have all been dressed up in space outfits and equipped with laser pistols. These are the dreams of a normal child, I think... I hope."

Motivated by the idea that "our dreams of today are the reality of tomorrow", and his quest to create the flying cars of his boyhood imagination, Marion developed the unique concept for his Air Drive series. At the end of 2012 in Geneva, the Frenchman shot the first automobile images that he would later manipulate into levitating machines.



Renaud Marion



Capturing the idea in his head of what constitutes a "flying car" and making it palpable required a two-step "manufacturing" process. The first step involved finding the subjects of the shoot and identifying the locations; the second involved the equipment.

"For the first part of the series photographed in Geneva, I chose the cars simply by walking down the street. I looked for cars parked on the side of the road as I wanted to use real size models instead of miniatures," he says.

Marion chose to shoot classic automobiles because they most closely resembled his childhood idea of what a flying car should look like. The first vehicles he photographed included a Chevrolet El Camino, Mercedes 300 SL Roadster and Jaguar XK120.

Finding the appropriate environment in which to shoot the autos meant seeking out spaces devoid of people and recognisable buildings. The venerable cars take centre stage against backgrounds of mid-20th century architecture in varying textures

### **"Marion says he'd like to drive a flying car before he dies"**

and muted or neutral colours. "I looked for architecture dating from the 1970s; for me that's retro-futuristic. The buildings had to be imposing, massive and graphic."

To achieve the look of "flying" cars, Marion had to apply a digital assembly technique to remove the tyres and wheel wells from the classic beauties and merge the cars onto different backgrounds, eventually settling on the right scene for each futuristic portrayal.

These photographic anachronisms garnered a lot of attention when the imaginative artist initially posted them online. Classic car lovers, science fiction fans and photo and art admirers were suddenly followers of Renaud Marion. This newfound recognition allowed Marion access to car collectors, some of whom lent their prized possessions to the photographer for his Air Drive follow-up shoot in Paris. These included a Mercedes 300SL Paul O'Shea, Lincoln Continental, Jaguar Type E, Mercedes 190SL, Aston Martin DB5 and a Porsche 356.

Currently living and working in Paris, Marion was born in the French Alps and began his love of art as a graffiti artist. But graffiti can be fleeting; to lend permanence to his spray-painted works, Marion decided to photograph them. These pictures he could keep forever.

Street art continued to be a focus, even after Marion moved to London. While there, he broadened his list of subjects to include people and architecture. Upon his return to France, Marion decided to fine-tune his photographic competencies at Parisian photography school EFET. Taking on work as an assistant, Marion had the opportunity to shoot photos in the fashion, advertising and decoration industries before he learned enough to fly solo. "Little by little I became a photographer," he says.

Marion's artistic inspiration derives from not only his childhood and sci-fi but also quirky filmmakers like Terrence Malick and Wes Anderson, and photographers such as Alec Soth and Nadav Kander. His works have been featured in several design and travel magazines and his collaborations also extend to communication agencies and architectural firms.

Marion says he'd like to drive a flying car before he dies, while the child in him hopes that the technology from science fiction stories will one day become reality.

**With special thanks to Juliette Duru from Maximilian Büscher and Friends, and the M.A.D Gallery. For more of Renaud Marion's work, check out [renaudmarion.com](http://renaudmarion.com)**



# Practice makes perfect

AFTER A FIELD TRIP TO THE NSW SOUTH COAST, AWARD-WINNING SHOOTER AND PHOTOSHOP GURU SHANX BOSE WALKS US THROUGH THE TECHNIQUES NEEDED TO ACHIEVE AN IMAGE HE CALLS "PERFECT".

**A** while back I had the pleasure of visiting beautiful Murramarang National Park on the NSW South Coast, and had the opportunity to shoot some images for this composite, which I've called "Perfect", featuring talented Canberra-based entertainer and model, Sumon Aye. In

this issue we are going to discuss in detail the techniques I used to achieve the final result.

## The base images

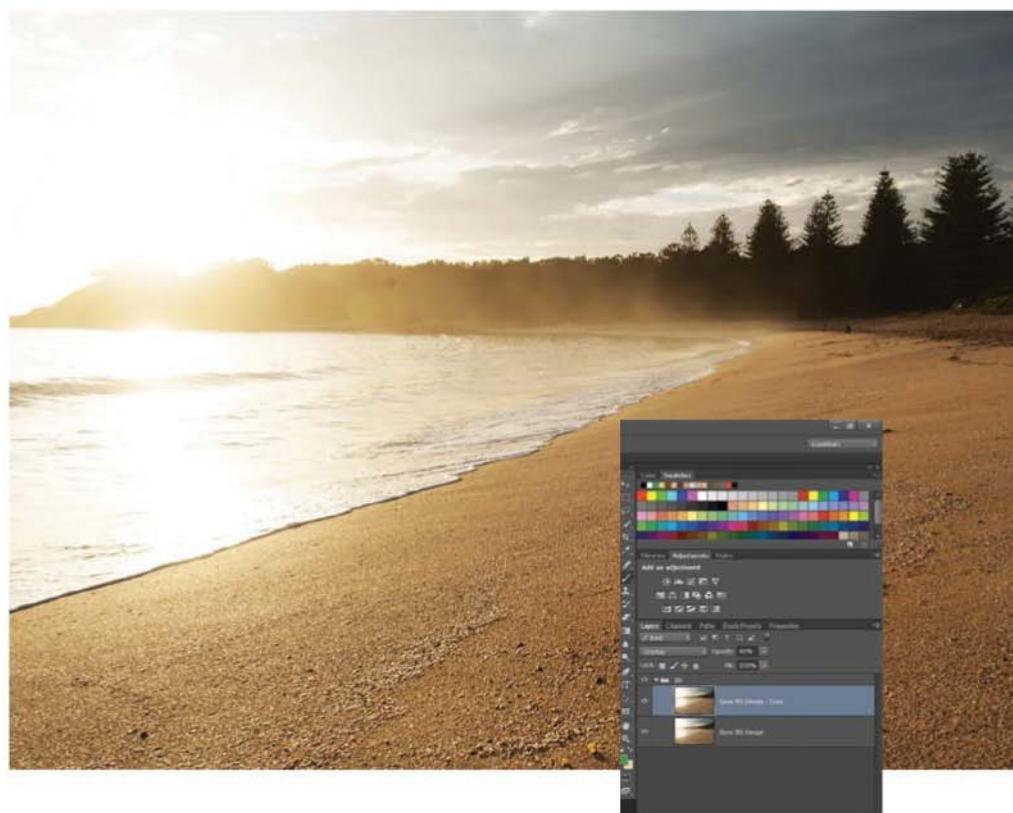
I shot the RAW beach images at 7am when the light was low. As the sunlight is also a hard light source, it brings out the textures on sand.

I overexposed the shot by 3 stops as I know my camera will expose the beach correctly and flare out the sun composed at the edge of the frame. I used F8 to get a good depth of field and maintain sharpness throughout. I also shot a second frame of existing footprints on the beach to be used later.



## 1 ENHANCE BACKGROUND IMAGE

Open the image. **Duplicate it by CTRL+J.** [Note: As the image was edited on a PC, all key shortcuts apply to Windows only.] Set the top layer to Overlay blending mode to make it pop. Using this mode is a great way of increasing contrast as it makes the darker areas of the image darker and the brighter areas lighter. **Drop the opacity of the Overlay layer to 60%.** Put these in a group called BG for the background by selecting and CTRL+G. We don't have to do much else to the background, as it's a strong image in its own right.



## 2 MODEL LIGHTING

Open our model Sumon's image as a Smart Object (**hold Shift when pressing OK in camera RAW**) as a separate image. To mimic the sunlight I used a large silver umbrella and white board placed below at camera left. The large light source mainly provides softer wraparound characteristics, but the silver reflector provides light that's a bit more contrasty, perfect for this scene. A second large silver umbrella was set to very low power at camera rear right.



## 3 EXTRACTING THE MODEL

Duplicate the Smart Object (**right click, New Smart Object via Copy**). Working on the top layer, use the quick select tool to select her from the gray background. **Click Refine Edge** and, using a soft brush, select areas around her hair that you may not have picked up. **Select Output to Layer Mask.** Don't worry if the selection is not perfect. **Shift Select the two Smart Object layers** and, using the move tool, move them into the main beach image. Create a group for them called FG (Foreground) via CTRL+G.

## 4 FIXING THE SELECTION: I

In the FG group, set the bottom layer's blending mode to hard light. **Add a new layer mask** and brush away the edges of the gray screen using a very soft brush. Be careful to brush around the natural shadows cast by the umbrella light sources. It should look pretty good, except for some gray areas around hair edges.

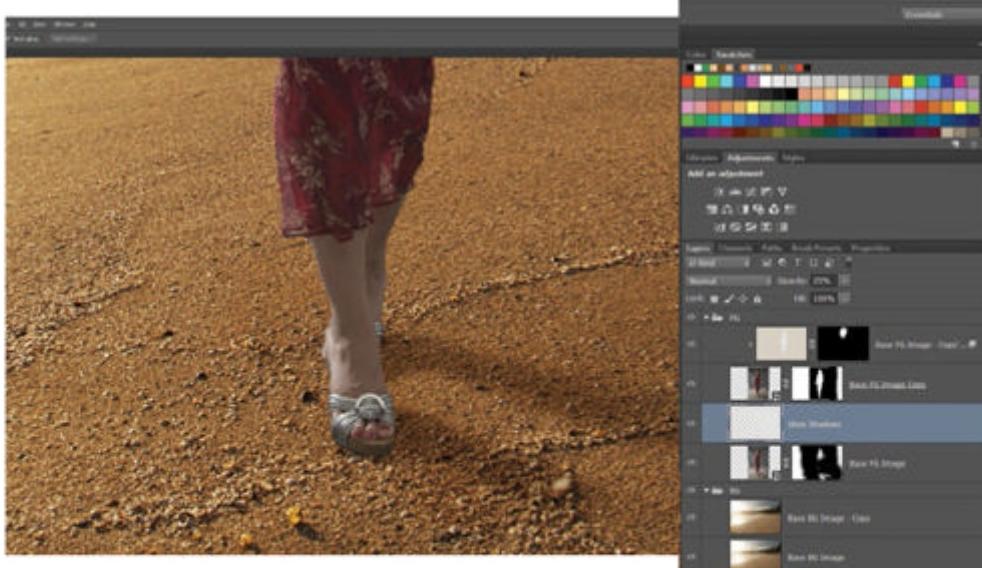
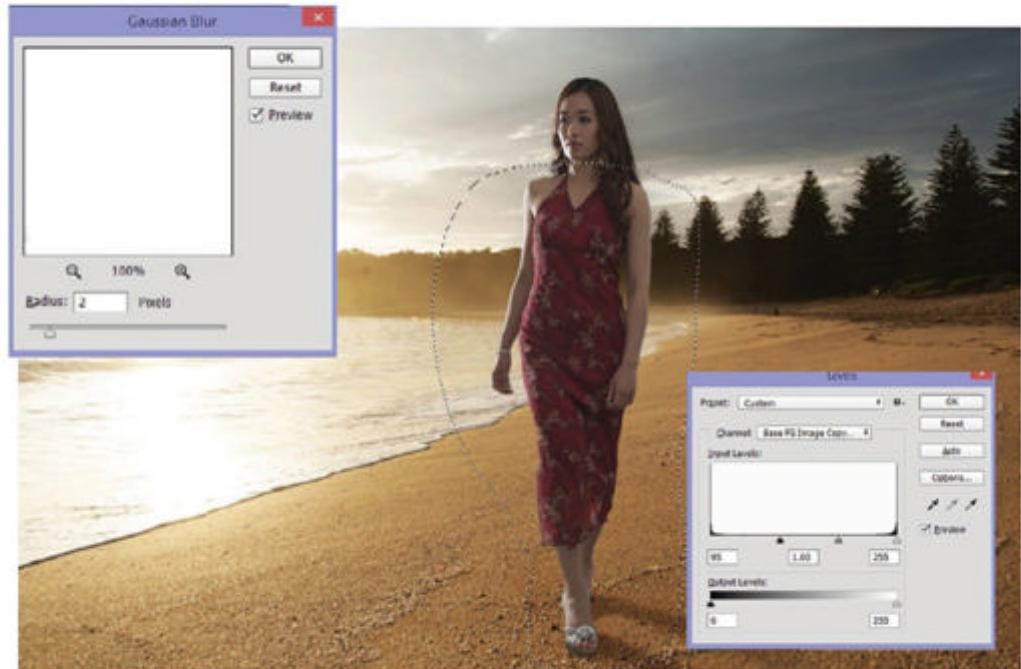
To fix this, double click on the top (masked) layer to get to layer properties. **Select Inner Glow**, click the colour box (under the Noise slider) to bring up the Colour Picker Dialog. Select a light colour from the image to match the sunlight's bright yellow colour and click OK. **Set the blend mode to screen**. Click OK to accept the changes.

Right click on the filter properties and **select Create Layer**. This will create the Glow effect on a separate layer, and will remove the gray smudges – but the glow applies to the entire model cutout. To fix this, add a mask and mask out the areas not affected by the glow – ie, leave the effect of the inner glow only on the hair edge areas.



## 5 FIXING THE SELECTION: II

There might be a fringe around the model. There are a few techniques you can use to get rid of it, but the easiest way is to first **select the layer mask, then use the lasso tool** to roughly select everything below the model's neck. From the main menu select **Filter/Blur/Gaussian Blur** for a radius of 1 or 2px.



## 6 ADD SHOE SHADOWS

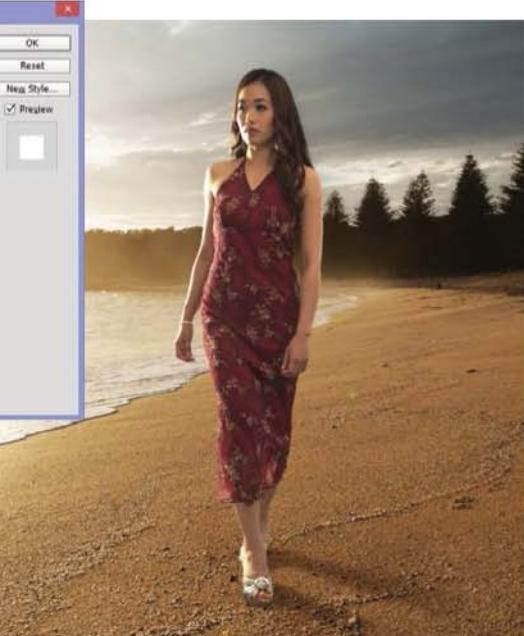
Just above the bottom Smart Object layer, create a transparent layer. Using a soft black brush, **paint in the under shoe shadows** for a more convincing image. Drop the opacity of this layer to 25%.

The screenshot shows the 'Shadows/Highlights' dialog box open in the foreground, displaying settings for Shadows (Amount 5%, Zone 65%, Radius 68px) and Highlights (Amount 0%, Zone 50%, Radius 30px). Below it is a photograph of a woman in a red floral dress walking on a beach at sunset. To the right is the Photoshop interface with the 'Layers' panel showing several layers including 'Smart Filters', 'Shadows/Highlights', 'Base FG Image', and 'Base BG Image'. The 'Color' panel is also visible.

## 7 FINE TUNE SHADOWS/HIGHLIGHTS

Select the top Smart Object layer with the mask and, from the main menu, select **Image/Adjustments/ Shadows/Highlights**.

Tweak the shadows and the mid-tone contrast: Shadows (Amount 5%, Tone 65%, Radius 68%, Midtone +12). Click OK.



## 8 TONAL GRADING

Now, we're going to ensure that where the sunlight hits (the highlights on the left), the colour is the same and of similar intensity but smoothly transitioning across our model.

**Add a Solid Colour Adjustment layer.** Set the blending mode to Colour Dodge. Clip it to the layer below by **CTRL+ALT+G**. **To restrict the colour to only the highlight areas, double click the layer for the style properties.** Go to the blending options panel, and to the blend-if section. While holding the ALT key, separate the black arrow of the underlying layer section and drag the split arrow to the right. Now the effect is mainly applied to the highlights, but transitions smoothly to the darks as well.

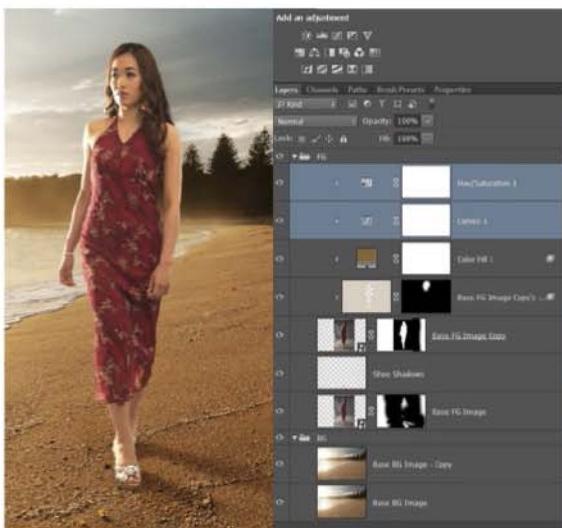
## 9 MORE SMALL ADJUSTMENTS

Let's make a few additional adjustments.

**Add a Curves Adjustment layer and bump up the midtones** by dragging the RGB curve upwards in the middle. Clip it by **CTRL+ALT+G**.

**Add a Hue/Saturation Adjustment layer** as well and bump up the saturation a bit for the model. Clip it by **CTRL+ALT+G** as well.

For a bit more finesse, create a new transparent layer, also clipped (**CTRL+ALT+G**) to the model layer. **Set the blending mode to Colour Dodge**, and after sampling from a darker area of the hair, **paint over the brighter areas of the hair using a soft brush**. This will make the hair highlights pop more. We're done with the model!



## 10 ADD HAZE BEHIND

To make the model fit in a bit more, let's add some ambient light behind her. Between the FG and the BG layers, create a blank layer. Change the blending mode to **Screen** and set at **20% Opacity**. Using a soft brush, pick a light yellow colour or sample from the scene and paint using short clicks or taps on the pen (if you are using a tablet).



## 11 ADD HAZE IN FRONT

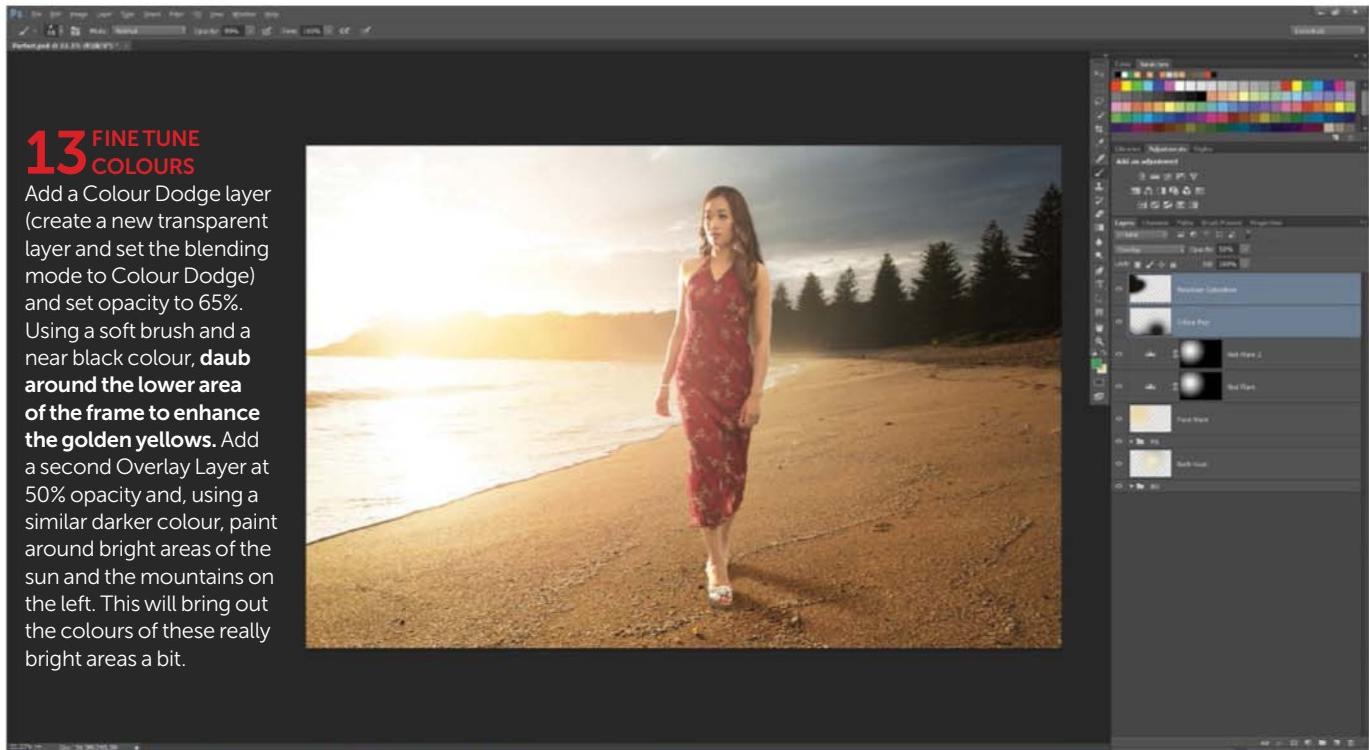
Now, the sun flaring out on the edge will also send light over the model's left side. For this glow, **create another transparent layer** but above the FG group. Repeat the process in Step 9.



## 12 ADD RED LIGHT LEAK

The light will look more convincing if we can also add some red light leak from the sun. To do this, simply **create a Levels Adjustment layer and select Red from the dropdown options**. Move the left slider from the Output Levels to the right. Now add a layer mask (ALT + new Mask) and, using a white foreground colour, use the radial gradient tool to reveal the red light. Duplicate the layer (CTRL+J) for a more pronounced red effect.





## 13 FINE TUNE COLOURS

Add a Colour Dodge layer (create a new transparent layer and set the blending mode to Colour Dodge) and set opacity to 65%. Using a soft brush and a near black colour, **daub around the lower area of the frame to enhance the golden yellows.** Add a second Overlay Layer at 50% opacity and, using a similar darker colour, paint around bright areas of the sun and the mountains on the left. This will bring out the colours of these really bright areas a bit.

## 14 ADD BIRDS (OPTIONAL)

There are plenty of free stock bird brushes and bird images available online. If you choose a bird brush, simply double click on the brush and it will be available as a brush for you to use. **Create a blank layer and, using said brush, paint birds in.** Alternatively if you have the birds in black on a white background (as in a stock image), setting the blending mode of the layer to Multiply removes the white areas, leaving the black birds behind.



## 15 ADD FOOTPRINTS

There is a small problem. We will need to add footprints behind her to make it more believable. When I took the main image, I also took additional images of existing footprints on the beach (see base image 2). Open image 2. **Using the lasso tool, select the footprints.** CTRL + C to copy the selection, switch back to the main image and paste it on a separate layer above the background layers in the BG group we created earlier. **Select the layer by CTRL+T for free transform.** Right click and select the option to flip it horizontally. Place it appropriately behind her feet. Duplicate the layer and set the blending mode to Overlay. **Drop the opacity to 60%.** Group the footprint layers by selecting them and CTRL+G and call it Footprints. **Add a mask to the Footprint group** and carefully mask away in and around the footprints.

To blend in the prints closer to her, **add a Curves Adjustment layer clipped to the Footprints Group** (CTRL+G on the curves layer) and increase the mid tone brightness. Add a mask to the curves layer and mask away the bright areas on the rear footprints.

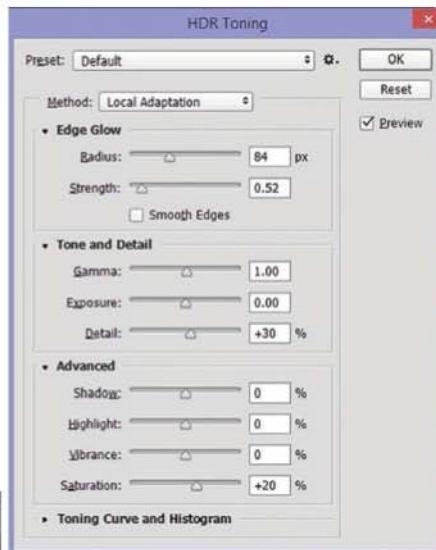
## 16 FINAL TOUCHES

Click on the birds layer.

Now create a stamp of all layers created (CTRL+SHIFT+ALT+E).

Select Image/Adjustments/HDR Toning from the main menu.

Say "yes" to flatten the document – don't worry about losing the layers, we won't. Adjust the Radius and strength in Edge Glow to taste. Feel free to play around with the other sliders. When done, click OK. A separate layer with a Lock icon will be created. CTRL+A to select the layer, then CTRL+C to copy to memory.



Now, press and hold CTRL+ALT. With those two keys pressed, keep pressing the Z key for unlimited undo. You will see the other layers. Now, paste the HDR layer you copied in memory (CTRL+V). Set the opacity to a desired value (I used 35%) so it blends with the rest of the layers. We're done!



**Editor's note:** A huge congrats to Shanx from the entire team at *Digital Photography Magazine* for his stunning results in the 2014 International Loupe Awards. He and his colleagues at Max Photography took home two Gold Medals, nine Silver Medals and a whopping 17 Bronze Medals across a variety of categories. To see more of his work, check out [Facebook.com/maxphotography.au](http://Facebook.com/maxphotography.au)

**FINAL IMAGE**

# Kick-start your photography

ADVANCE YOUR PHOTOGRAPHY WITH NEW IDEAS, SKILLS AND INSPIRATION AS WE OFFER YOU WAYS TO SPARK YOUR CREATIVITY AND GAIN THE MOMENTUM YOU NEED TO PRODUCE YOUR FINEST PHOTOGRAPHY YET

Words: CAROLINE SCHMIDT

DO YOU SOMETIMES feel the photo blues, that your images fall short or that you're ready to pack up your camera bag for good? Snap yourself out of it! Even the world's best photographers hit a photo slump now and again where inspiration wanes, boredom with the norm sets in or self-doubt suffocates creativity. Most of the best photographers are those who are rarely happy with their images, too, as they're the ones who are constantly striving to do better.

The all-too common excuse of never having enough time to build on new skills or to try new ideas is understandable when work

and family commitments take priority, but making the time to develop your photography is important, too. The adage 'use it or lose it' is apt: creative photography needs to be fuelled, inspired and applied.

There are rarely enough hours in the day to do everything we want to and there's nearly always a task that could take priority over our photography, unless you change that. The stresses of everyday life can make you forget what you love about photography and not having the time to focus on developing your skills can mean you fall into a rut and snuff out your creative spark.

It happens to the best professionals, too: they can get stuck in a comfort zone or bogged down with editing, invoices and marketing that they feel like they lose their passion for photography, which is why personal projects are an absolute must.

Whether you can squeeze in an hour or two on a weekend to try *Photo Skills*, plan a test shoot or your next trip, spending quality time with your camera will pay dividends. We've 12 great tips to help you shoot yourself out of a slump, to ignite your creativity and grow your skills to make your photography even more rewarding and exciting.





PREVIOUS PAGE: THINKSTOCK; LEFT: ROSS HODDINOTT

## 1 Visit a new location

Take yourself away from the familiar and plan a trip to explore a new view: you'll instantly become inspired by new challenges, subjects and locations to shoot.

### ROSS HODDINOTT *landscape photographer*

"When you are a creative type, I think it is inevitable that you will get stuck in a rut from time to time. All photographers do, surely? However, that is no comfort when you feel frustrated and fed up with your photography. Being a pro doesn't exempt you from such feelings. I still have my moments of complete frustration.

Am I improving? Why aren't my shots better? Should I just give up and sell my cameras? It might sound daft, but there will always be times when you feel your work has got stale. What is the cure? For me, I shoot somewhere I've never shot before. Somewhere shiny and new that will get my creative juices and enthusiasm flowing again. For example, the last time I was going through a 'rough spell' I took myself off to the Isle of Skye for a week. Escaping my usual haunts and visiting fresh viewpoints really did the trick. By the time I returned home, I was full of enthusiasm again for my work – normal service was resumed! I highly recommend visiting a new location next time your photography is feeling a little stale."



ROSS HODDINOTT

## 2 Learn new skills

Are you a portrait photographer who'd like to try landscapes, or a landscape photographer who'd like to shoot wildlife? There are plenty of places to find inspiration. Many pro photographers offer group or one-to-one workshops that can give you a crash course in a new photography genre, but research them to ensure the best teaching first. Training providers, such as Dawn 2 Dusk Photography, and Aspire Photography Training, offer courses while CreativeLive.com provides free online classes by leading pros. You could also head to a photography trade show to sit in on a seminar and talk to pro photographers about new kit and techniques. Better still, make a point of trying all of our *Photo Skills* in each issue of the mag, and buy *Digital SLR Photography MagBooks* ([www.magbooks.com](http://www.magbooks.com)) for expert advice and tutorials on a wide range of topics.



THINKSTOCK

## 3 Become inspired

Looking at what other photographers have created, the techniques that they use and the projects they pursue is often enough to give you 'itchy feet' with your photography. Images in our *Portfolio* section are there to do just that, but also perusing portfolio sites like 500px, Behance or Flickr can get you awe-inspired. There are also some amazing photography projects being done for charity that will make you feel you could be doing more. While creating incredible images is its own thrill, producing pictures for others for free that you know will be cherished is so fulfilling it could be called selfish, not selfless. Give your morale a boost and see what a difference your photography can make and the incredible difference other photographers' work is making – that's sure to give you reasons to shoot.



#### 4 Do a daily project

A 365-day project is a great way to train yourself to see and create more photo opportunities. You might surprise yourself with how creative you can be.

**CATHERINE MACBRIDE**

*Creative photographer*

"It can be very difficult to keep your photography fresh and inspired, but for me my photo-a-day project has done the trick. Having to take a photo every day pushes you outside your normal comfort zone as you have to shoot what's available, and that might be something you've never shot before. I'm in my fourth year of a 365-day project and it led me to realise that I love making things to photograph and tapped in to creativity I didn't know I had. I've also learned to think on my feet; when an idea doesn't work, you're forced to adapt to get the photo, which often leads to something new and unexpected."





TIM WALLACE

### 5 Do a personal project

Step outside of your comfort zone and shoot something that interests you, captures your imagination and gets you giddy, whatever or wherever it might be!

#### TIM WALLACE *Automotive photographer*

"It is really easy when you're busy to focus on the workload and not to take time out for yourself. I don't just mean time to relax away from work but to recharge those 'creative' batteries! Each year I make a very positive effort to take some time away from the commercial shark tank and creatively kick back by shooting something that interests me for no other reason than to enjoy it. Over the last few years this has been some pretty varied subjects: street photography in San Francisco, which won me Landscape Photographer of the Year; photographing

Alcatraz to document the prison as it stands today (as rumours grow that it's soon to be a hotel); and last year I shot the ghost town of Darwin in Death Valley – those images have since been published around the world in magazines and featured in a solo exhibition, sponsored by Fujifilm.

"It is a far cry from what I regularly shoot for my clients like Aston Martin, but it is a very important exercise for me personally to remain enjoying photography and it helps me to relax and flow with ideas; there are no huge budgets and tight deadlines, no pressure or briefs; I can do what I want and how I want to do it, and that helps me to refocus creatively and keep enjoying what I love to do. Photography is a journey, not a destination. The trick is to make sure you keep moving forward and enjoy the trip."



### 6 Enter a competition

There are countless photo contests happening throughout the year and while it's a great way to bag a few new toys, some cash or get your images noticed, it's also a fantastic way to focus your photography. It's rare you'll find a competition that perfectly fits one of your photographs; often there's a brief stipulating a timeframe, a subject, theme or idea that the image needs to adhere to and that forces you to think creatively, plan and step outside of your comfort zone. Winning should be considered a bonus: it's definitely the taking part that counts here. You can keep abreast of most major 2015/2016 closing and opening competition dates via [www.photocontestinsider.com](http://www.photocontestinsider.com)



FRANK BRANKAMP

### 7 Set yourself a goal

Whether it's photographing gorillas in Borneo, mastering panning or launching a book or exhibition, a goal gives you focus.

#### BEN HALL *Wildlife photographer*

"I can think of more than one occasion when I have become stuck in a rut. Usually it happens when I am between projects so, for me, setting goals and tackling a new species helps reignite my passion. This is especially true when working with a subject that I have never photographed before, or visiting a place I've never been. Sometimes things don't go my way and it can be frustrating spending valuable time working on a subject and coming away with nothing. But, wildlife photography is unpredictable, and even when shooting a familiar subject there's always a chance of the unexpected. At times when I am less motivated, it's this mindset that I adopt, and more often than not, I end up with an image that I can be proud of."



## 8 Arrange a test shoot

Do you want to create fabulous stylised portraits, expand your skillset or polish up your posing? Consider arranging a test shoot – it's an opportunity to build your portfolio with professional-looking images, to trial ideas and, above all, make mistakes that you can learn from. Pro photographers like Brett Harkness do it all the time. It's a chance for them to create images that they might not have the time or opportunity to when shooting for a client. You pick your model, choose any location and the styling; it's your chance to shine without influence. Look to get a team of make-up artists and stylists involved, even a retoucher, to help create your most polished portraits. Often they'll give time for prints as they too are trying to build a portfolio, as will models. It's a great chance to be daring and have fun; make your vision a reality and share it with the world. People will see that you're busy and proactive too, which can attract interest in your work.



9

## Improve your workflow

Nothing will drain enthusiasm more than sitting in front of your computer for hours upon hours editing images. You need to get out and shoot more – a lot more! If you're spending most of your time editing, then that's even more reason to put the stylus down and pick up your camera. Strong images need little processing to make them stronger: weak images need all the help they can get, and even then that's rarely enough. Learn how to capture incredible images in-camera and your editing process will be enjoyable and more about enhancing than recovering. Consider using actions and presets, too, to apply blanket effects, saving you precious time and often adding polish to your pictures. Plug-ins such as Nik Software also offer great one-click and adjustable options.



## 10 Hire a lens

Want to gain a new perspective? Try out a new lens by hiring it. Renting couldn't be easier – many companies even ship direct to your door and collect when you're done.

### JORDAN BUTTERS *Action photographer*

"There isn't a photographer out there who doesn't suffer from a smidgen of Gear Acquisition Syndrome. No matter how much of a slump you find yourself in, a shiny new piece of glass will always offer the urge to get out and give it a test run. It can also be used to gain a new perspective on usual subjects. I recently hired a 400mm f/2.8 prime lens to shoot motor sport at a circuit that I frequent. Armed with a different lens, I was able to find new angles that I'd not seen when shooting there previously and it revitalised how I approached and shot the event."



## 11 Join a community

It could be your local camera club, a Flickr group, 500px or the *Digital Photography* Facebook page, but whatever form of community you choose to join should give you an outlet to shoot and share. It's a great way to get feedback and advice on your images, to be inspired by other photographers' work or to feel better about your own! You can even ask technique or equipment-related questions or for recommendations on models, locations or competitions, too. Many photographers' careers have been launched, or gathered momentum, thanks to social media, such as Sean Archer, Dani Diamond and Elena Shumilova – so what are you waiting for? Join like-minded photographers and see what opportunities come your way.

## 12 Hire a studio

Few of us have the luxury of a home studio, but that shouldn't mean studio portraits aren't within your reach. Hire a studio for a creative play day.

### CAROLINE SCHMIDT *Portrait photographer*

"Working in natural light offers opportunities for beautiful portraits and comes with plenty of its own challenges to keep you busy and evolving, but taking a break from the way you usually shoot can refresh your style and re-inspire your photography. Not everyone can afford to access the latest and greatest lighting equipment, which alone can raise the quality of your photography several notches. There are, however, studios throughout the country that allow photographers to hire their space for the day, or just a few hours, and enthusiast photographers often get a

discount because they're not earning money from their session. You get access to their props, lighting aids, studio lights and, best of all, the studio manager's expertise as they're often nearby to offer help and advice. All you'll need is a model."

"I did just this recently for a mum and baby shoot and it was a fantastic and inspiring day of photography. I experimented with lighting techniques, used kit I wouldn't otherwise work with and learned from new challenges. I was buzzing for more afterwards! Having the chance to step outside of your comfort zone and still create quality images you're proud of is a huge boost and fuels your photography for weeks to come; you won't be able to wait for the next time you can push your photography that little bit further."





# THE ART OF FLIGHT

WILDLIFE PHOTOGRAPHER BEN HALL SHOWS YOU HOW TO BEST CAPTURE THE MAJESTY OF A BIRD IN FLIGHT

CAMERA: CANON EOS-1DX  
LENS: CANON 70-200MM F/2.8L IS USM

**W**HAT SEPARATES MOST birds from other fauna is their ability to fly and, for me, it's when they look their most spectacular – no matter whether it's a kittiwake riding the air currents on a sea cliff or a peregrine stooping towards its prey. Birds can move incredibly fast and are seldom predictable, so it's no surprise that capturing the beauty of flight is regarded as a benchmark in wildlife photography. Photographing birds flying in the wild takes a great deal of time and dedication: you need to spend considerable time observing your subjects' behaviour and to scope out locations, which often means sitting for hours in a cramped hide overlooking an empty landscape! Bird of prey centres, for

this reason, offer fantastic opportunities to capture images that would be impossible for those with a busy schedule to achieve in the wild. Places like falconry centres offer dedicated photography sessions – a type of scenario that is ideal as the falconers may be able to fly the birds in natural settings, preventing fences and other man-made objects from ruining your shots. It also means you have access to multiple species.

Light plays a crucial role in all wildlife photography and flight images are most effective when the sun is low in the sky as it lights up the underside of the bird, revealing important feather detail. The direction of light will also have a dramatic impact on your results. Backlighting can be used to create a halo of light around your subject, known as rim-lighting. Shooting into the light can create a beautiful translucency to the wings and can conjure a wonderful

sense of atmosphere, but it must only be attempted when the sun is very low in the sky. Front lighting is more typical. It will give even illumination and reveal fine feather detail; excellent for a record shot, but seldom the most dramatic image.

When it comes to focal length, I recommend using a telephoto lens of at least 200mm and up to 500mm. Lenses with a large maximum aperture, such as f/4-f/2.8, also have the advantage of focusing faster, providing shallower depth-of-field to isolate your subject and enable faster shutter speeds. The longer the focal length, however, the trickier panning can be so you may need to practise a lot to get it as precise as you need. You can also use teleconverters for extra reach but be aware they will restrict the light considerably and therefore shutter speeds. ►►



#### COMPOSITION

For the most aesthetically pleasing compositions, try to place the bird off centre, thereby leaving space in the frame for it to 'fly' into.



**1 PICK YOUR SHOOTING POSITION** Choose a position that offers an uncluttered background and get eye level with the bird. By shooting from a distance with a long lens and wide aperture (f/4.5 or wider), you will find it easier to capture a diffused background that separates your subject from its surroundings. Look for a background that is dark in tone to make the bird stand out – by underexposing the shot slightly, it can add a mood and a sense of drama – especially if accompanied with backlighting.



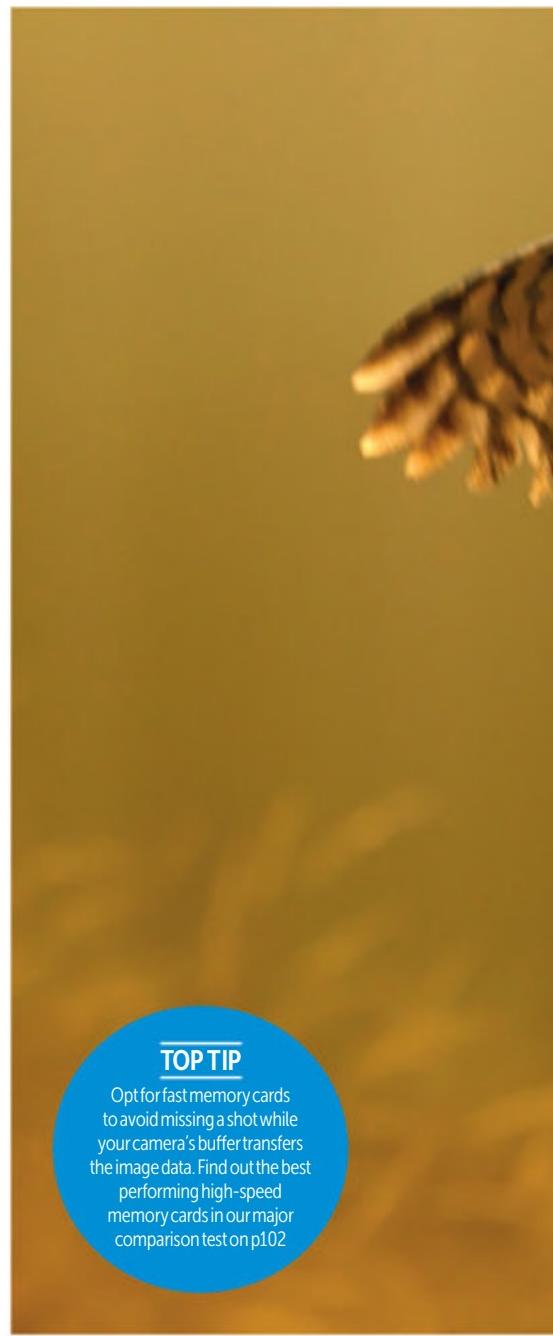
**2 APPLY YOUR SETTINGS** Set your camera to shutter-priority exposure mode and continuous shooting. Use predictive autofocus (check your camera's user manual for details) as it enables the camera to track the subject as it moves through the frame. Use exposure compensation to adjust the exposure, if needed, to suit the scene. For instance, if you're shooting a pale bird, such as a snowy owl, against pale surroundings, add positive exposure compensation to avoid the scene becoming underexposed.



**3 PERFECT YOUR PANNING TECHNIQUE** The key to panning is smoothness and anticipation as you need to keep the focus point on the bird's head as it flies by. If you prefer to shoot handheld, adopt the correct posture: your feet should be shoulder-width apart with your elbows tucked into your side. Anticipate the position your subject will be in when you fire your shots and swivel the upper half of your body in one constant movement. Employ a high burst rate to give you more chance of getting a sharp shot.



**4 PICK YOUR SHUTTER SPEED** Different shutter speeds produce varying effects, so experiment as much as possible. Shutter speeds between 1/10sec and 1/60sec generally give an abstract effect, while faster speeds of around 1/350sec are still slow enough to render movement in the wing tips, depending on the speed of the subject. Remember to be creative: there is no right or wrong, it is simply up to you to find a setting that you like which produces a final image that you are entirely happy with!



## TOP TIP

Opt for fast memory cards to avoid missing a shot while your camera's buffer transfers the image data. Find out the best performing high-speed memory cards in our major comparison test on p102



## ALTERNATIVE TECHNIQUE

### A) FREEZE MOVEMENT:

If you want to freeze your subject, set your camera to aperture-priority mode and a wide aperture to limit depth-of-field. Keep an eye on the shutter speed: if it drops below 1/700sec, increase your ISO setting to compensate.

### B) TAKE A BIRD PORTRAIT:

Use single-point AF and a wide aperture, such as f/2.8, to focus on the bird's eye. Try to get eye level with the bird and either fill the frame for a tight crop or include what it's perched on – featuring foreground interest helps to add depth to your image, too.





## BIRDS IN FLIGHT: COMMON ERRORS



### 1) Clipped wings

Allow room in the frame for the bird's full wing span, which can be much wider than you first anticipate! Here, the tips of the owl's wings are cropped by the edge of the frame, leading to an awkward composition.



### 2) Messy surroundings

Your choice of background can make or break a shot like this. Shoot at a wide aperture to throw the background out of focus and plan your shot so that you capture the bird as it crosses the cleanest part of the backdrop.



### 3) Wrong panning technique

Panning takes a lot of practice to master but is necessary if you want a great bird of prey image as rarely does a bird fly directly towards your lens, but often at an angle across your frame. Perfecting your pose is the first step to success.



### 4) Backlighting

Backlighting can provide dramatic mid-flight images but are easy to underexpose. Add positive exposure compensation to obtain the correct exposure and check the histogram for blown highlights in the feather details.



**PHOTO**  
**SKILLS**

# PAINTERLY PORTRAITS

WANT TO SHOOT CLASSIC PORTRAITS THAT LOOK LIKE THEY BELONG IN A GALLERY? CASSIDY KRISTIANSEN SHOWS YOU HOW TO USE SOFT STUDIO LIGHT TO SHAPE STUNNING PORTRAITS

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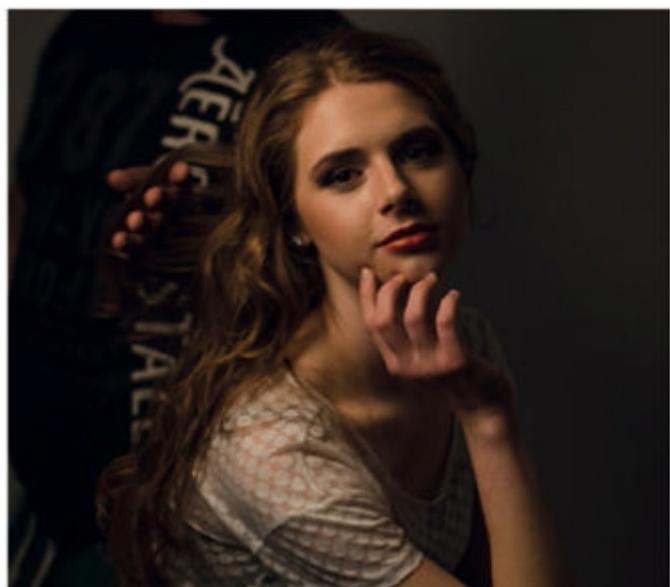
CAMERA: NIKON D7100 / LENS: NIKON 50MM F/1.4G / LIGHTING: PROFOTO COMPACT 600

**R**ECENTLY, MY IMAGES have been heavily influenced by museum fine-art paintings, especially from the Renaissance era. I spend hours studying the quality of light used in these classic masterpieces, considering and learning how I can translate it into studio lighting for portrait photography. It's become one of my favourite lighting styles as it produces dark, atmospheric and intimate images. This type of lighting cannot be achieved

using studioflash; it needs a wide aperture for shallow depth-of-field and the inherent softness that goes with it, plus a very soft malleable light, which can only be achieved using a controllable continuous light source. In this case that's the modelling lights on my Profoto Compact-R 600 studio lights, but you could use most other light sources, as long as they can be diffused and controlled.

Photography doesn't need to be complicated; less is often more and if

you use high-end kit or many studio lights it doesn't always guarantee great pictures. Usually, modelling lights are only meant to be flicked on to show the photographer where the flash will fall when it's fired, but in this case the warm, soft glow from modelling lights makes them ideal. The beauty of continuous lighting is that it also allows you to visualise exactly how your image will look before you press the shutter, enabling you to consider how light and shadow shapes the face.



**1 SET UP YOUR EQUIPMENT** Before styling your model, experiment with a few test shots to get the position and exposure of your lights right. Here, I'm using two Profoto Compact-R 600 studio lights, but you can use any constant light source, providing you can control the spread of the light. I've used a silver beauty dish with a diffusion sock as my main light and a grid on the hair light.

**2 TAKE YOUR TEST SHOTS** Set your main light to the left of your subject, slightly higher than their head at 45°. Pay attention to how the light hits your subject and where it falls off: you're looking for the telltale triangle of light on the cheek furthest from the light that distinguishes 'Rembrandt' lighting. The benefit of using constant light source is that any changes you make are immediately visible.



**3 EXPERIMENT** Notice how the lighting style changes depending on the angle and subject-to-light distance, and as you adjust the brightness of your main light. You want a smooth, soft light with a sharp fall-off from the face. Once you've found that sweet spot with your main light, adjust any accent lights. I set my hair light to half the power of my main light.



**4 TAKE YOUR SHOTS** Select manual or aperture-priority mode and choose a wide aperture of at least f/2.5 and adjust your ISO to eliminate camera shake and subject movement. For a 50mm f/1.4 that's about 1/60sec or faster. Set a custom White Balance to slightly warm the colours or shoot AWB and adjust the colour in Raw conversion. Focus on your subject's eyes and shoot.



# SHOOT A LANDSCAPE SILHOUETTE

AS DAYS GET SHORTER AND SUNSETS MORE ATTAINABLE, PROFESSIONAL LANDSCAPE PHOTOGRAPHER HELEN DIXON SHOWS YOU HOW TO SHOOT STUNNING SILHOUETTES IN SECONDS

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CAMERA: NIKON D800E / LENS: NIKKOR 50MM F/1.4G

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IT'S TEMPTING AS a landscape photographer to want to capture every tiny detail within a scene, but some scenes actually work best when stripped back to their basics. Obscure the details and suddenly shapes, outlines and forms are exposed, allowing the viewer to see something that might not have been obvious at first glance.

A silhouette is a shape or outline shown against a bright background. They tend to make bold, graphic images and are a great way to not only make abstract shapes in the landscape really stand out, but also allow you to make the most of an interesting or colourful sky behind.

However, not every scene will work in silhouette, so knowing how to recognise a potentially good silhouette is a good skill to learn. For a start, it goes without saying that the background always needs to be brighter than the subject to capture a silhouette. The subject also needs to appear to be above the level of the horizon, too, so silhouettes in landscapes are often best shot from a lower ground level than the subject. Also, because only the basic shape of the subject is visible, elements that overlap with others in front, or behind, them can get easily lost in silhouette. For this reason, your angle and position are crucial. Silhouettes are best shot late in the day, facing towards the light, as less light will hit the front of your subject under these conditions. Here's how you do it...



**1 FIND POTENTIAL SUBJECTS** Assess the scene and look for elements that could make an interesting silhouette. Church spires work well, as do statues, monuments, rooftops with chimneys and trees – anything that adds shape to the horizon. Shoot facing west during golden hour to ensure deep shadows.



**3 SELECT SPOT METERING** Set your camera to spot metering mode (consult your camera's handbook), easily identified by the small circle symbol, shown above. Point your camera at the brightest area of the sky and hold down the AE-L button to lock the exposure to this area. Recompose and take the shot.



### USE SPOT METERING FOR SILHOUETTES

Evaluative, or Matrix, metering assesses the whole scene and tries to come to an average exposure – not ideal for silhouettes. Spot metering, on the other hand, meters from a specific part of the scene. For Canon users, the spot meter is always taken from the centre of the frame, whereas on Nikons, the spotmetering point is linked to the AF-selection point when in single AF point mode.



**2 SET UP YOUR CAMERA** Select aperture-priority or manual exposure mode and dial in an aperture between f/8-f/13 for optimum sharpness and depth-of-field. Ideally you should use a tripod, but if you're shooting handheld, select an ISO that gives you a fast enough shutter speed. Set focus on the object that will be silhouetted.



**4 CHECK THE HISTOGRAM** After capturing the image, check your camera's histogram to make sure that the highlights haven't been clipped. Turning on your camera's highlight warning facility will also help identify any areas of overexposure, as they will flash on the LCD. If there is clipping, add negative exposure compensation and try again.



#### SEASIDE SILHOUETTES

Including water and reflections in the foreground of your silhouette shots can help add extra interest to the image.

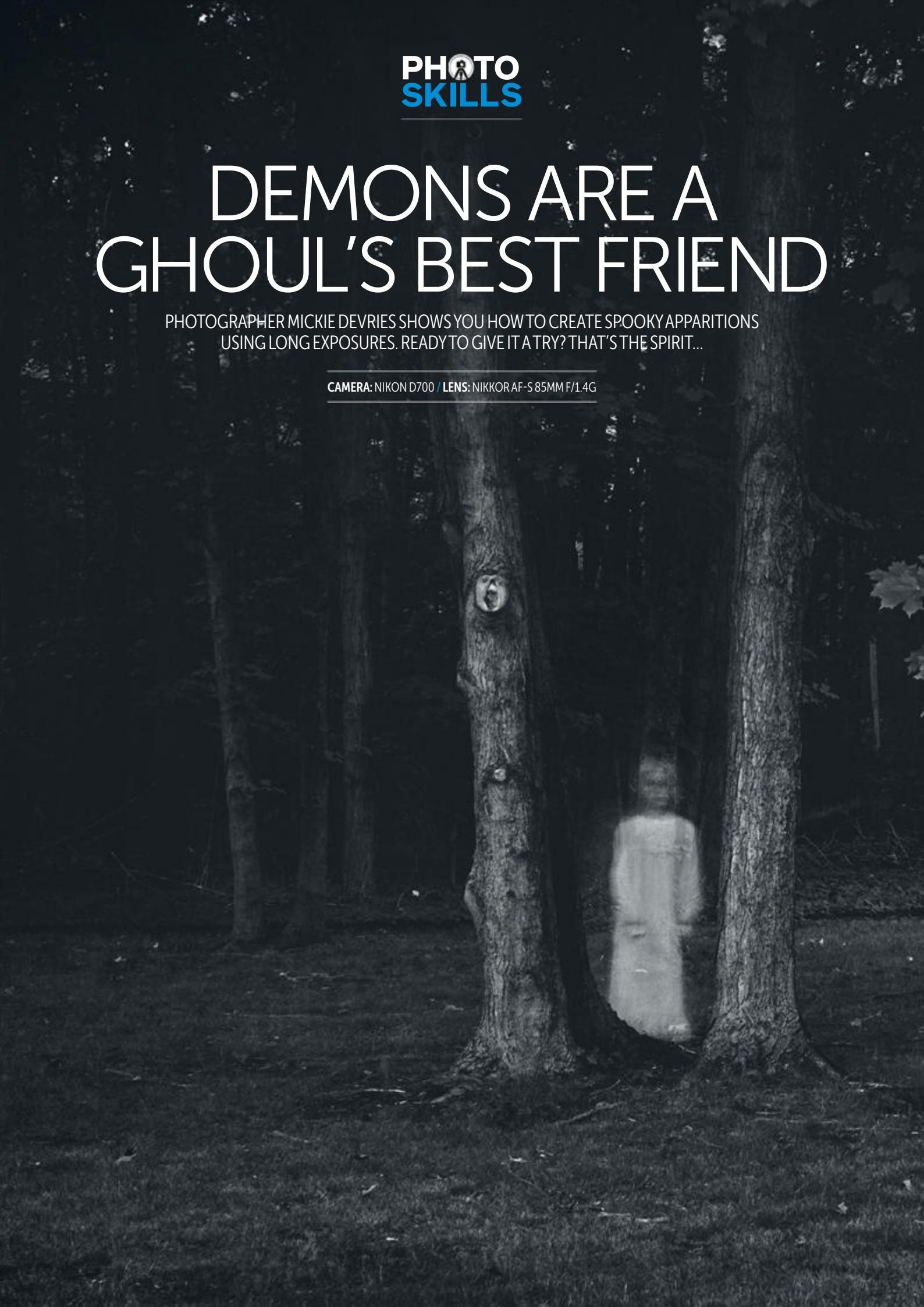
Exposure: 1/8sec at f/13 (ISO 100)

**PHOTO**  
**SKILLS**

# DEMONS ARE A GHOUL'S BEST FRIEND

PHOTOGRAPHER MICKIE DEVRIES SHOWS YOU HOW TO CREATE SPOOKY APPARITIONS  
USING LONG EXPOSURES. READY TO GIVE IT A TRY? THAT'S THE SPIRIT...

CAMERA: NIKON D700 / LENS: NIKKOR AF-S 85MM F/1.4G





In 2011, QUITE by accident, I started to see the possibilities of using long exposures to create ghostly images. I was taking photos of my children's carved Halloween pumpkins using a tripod and a long exposure. My daughter ran into the frame, and while editing I noticed she appeared transparent. For the past few years I've played around with ghostly images – they are great fun and perfect every time Halloween rolls around.

Before you begin there are a few things that you'll need to make your spooky shoot a success. For starters, a tripod is a must and a remote release helps too. While some motion blur is acceptable for your ghost, the rest of the scene should be sharp. However, sometimes a bit of blur can add to the uneasy mood, so don't be too hasty to delete blurry shots. In terms of lens choice, your standard kit zoom is ideal, offering the ideal focal length for including your surroundings too.

This leads us on nicely to location, and your choice of surroundings is important

to enhance the ghostly, haunting feel of the photo. If it looks spooky then it'll work – a gathering of trees, derelict buildings and graveyards are ideal. Look for areas that are inherently dark: this allows your subject to stand out, and a shot that is dark in general will lend itself to a more haunting look.

Your subject's clothing is important, too – you want it to contrast with the surrounding environment, so light clothing works well. It is important to think about the feel you would like the photo to project, and while a haunting photograph can certainly be taken while the ghost is wearing modern day clothing, I feel it adds authenticity if my subject is dressed in a style reminiscent of older days. My daughter has an old fashioned nightgown made by my mother that is perfect here.

This technique takes some experimenting as there isn't a formula that works every time, but the possibilities are endless! I promise that if you take the time to try this technique, it's quite easy to achieve ghostly results...



**1 SET-UP** On location, wait for low ambient light; during dusk is ideal. Otherwise, you'll need an ND filter to allow you to use a long exposure. Set up your tripod and have your subject stand in their final position, as they won't be in the frame when the exposure starts. Focus on your subject and get them to remember their position before locking to manual focus and asking them to step out of the frame.

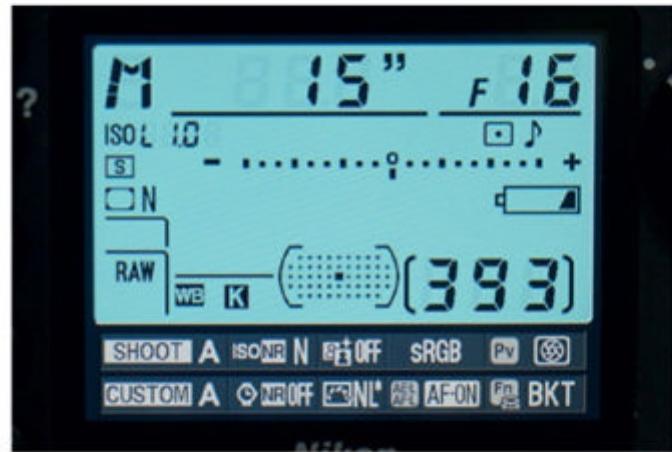
### 3 FIRE THE SHUTTER

To create a ghostly apparition, start the exposure before the subject enters the frame, allowing the camera to record the background before they step in, making them see-through. Have the subject stand out of shot and, once you press the shutter, have them wait for five to ten seconds before quickly moving into position. Once there, they need to hold perfectly still.



### PROCESSING TIPS

Always convert my ghostly shots to black & white as it adds to the eerie effect. Using the black & white mix sliders in Lightroom can help selectively brighten or darken areas of the image, while an adjustment brush can be used to selectively dodge your subject to make them stand out more, or burn the surroundings to make them appear darker. Finally, a vignette helps focus the viewer's eye.



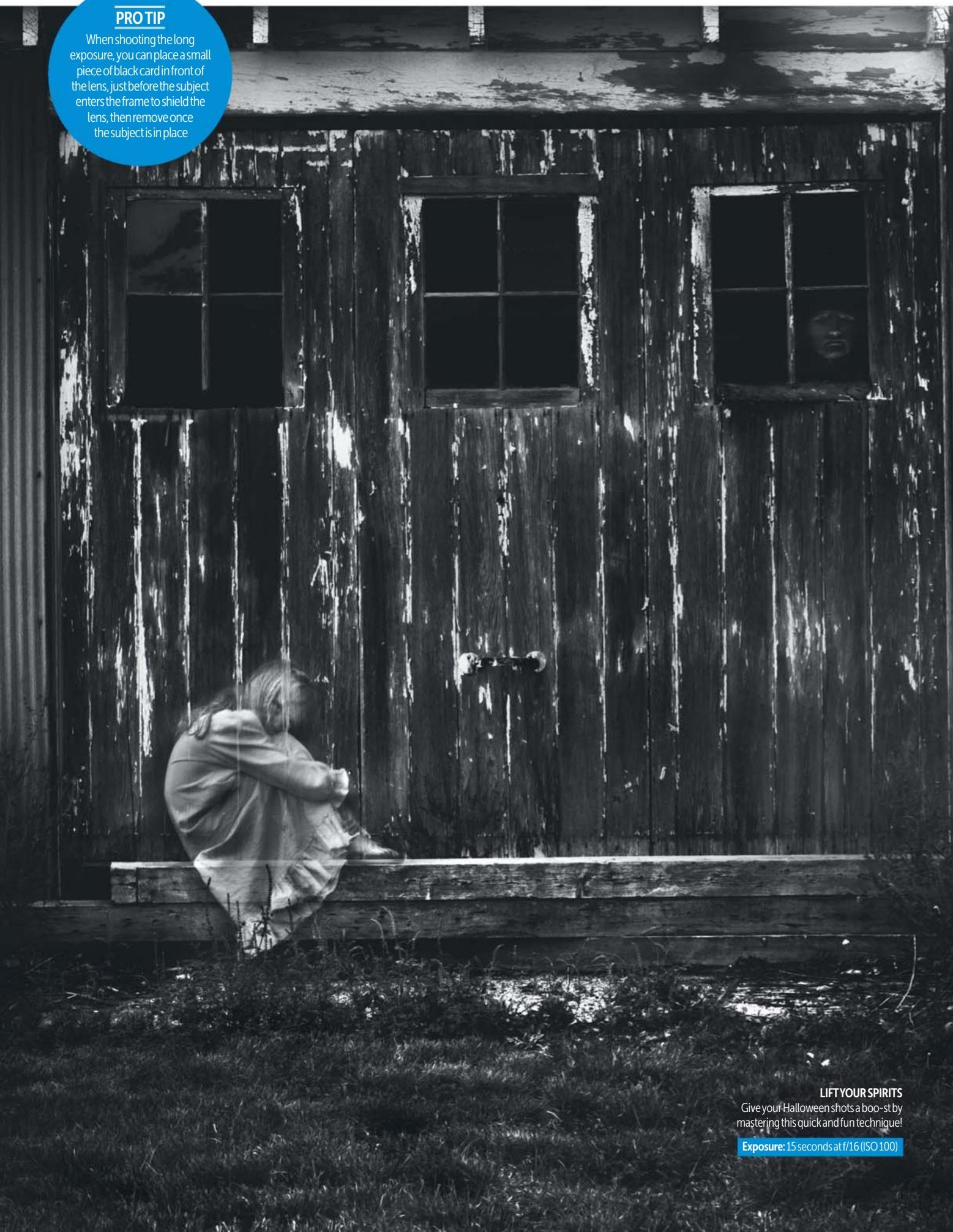
**2 DIAL IN YOUR SETTINGS** Select manual or shutter-priority mode and dial in a shutter speed of 15 seconds. Select the lowest possible ISO – use a 'Low' setting if available. Half-press the shutter and check the aperture – if it's flashing you'll need to either select a shorter exposure, use a lens that offers a smaller minimum aperture, fit an ND filter to block some of the light or wait for the ambient light to die down.



**4 EXPERIMENT** Try out different poses, and vary the length of time your subject stays in the end position. The longer they are in the frame, the more opaque they will be. This is the point where I play around with how long I have the exposure going before my subject enters the frame. You may also want to experiment with having your subject freeze in multiple locations in your frame during your exposure, so that they show up as multiple ghosts. Have fun and be creative!

### PRO TIP

When shooting the long exposure, you can place a small piece of black card in front of the lens, just before the subject enters the frame to shield the lens, then remove once the subject is in place



### LIFT YOUR SPIRITS

Give your Halloween shots a boo-st by mastering this quick and fun technique!

Exposure: 15 seconds at f/16 (ISO 100)

# STORM IN A TEACUP

RAINY DAYS STIFLING YOUR CREATIVITY? STILL-LIFE PHOTOGRAPHER CATHERINE MACBRIDE BREWS UP A GREAT IDEA USING A FEW SMOKE PELLETS AND SOME CHINAWARE...

CAMERA: CANON EOS 7D / LENS: CANON EF 50MM F/1.4 / SOFTWARE: PHOTOSHOP CC

**PRO TIP**

Small smoke pellets burn for a very short time, so set your camera to continuous shooting mode as this will allow you to get as many shots as possible



**P**REPARE YOURSELF FOR a shock: I don't like tea. Despite coming from a family of big tea drinkers, I can't stand the stuff! I do, however, love teacups and have a rather nice collection of them, which is probably an odd obsession for a non-tea drinker. Rather than being vessels for liquid, my teacups are one of my favourite photographic subjects – and one of the ways I've discovered that can bring a little life into them and create a more dynamic image is to burn smoke pellets in them. It's all in the name of photography, of course!

Smoke pellets are available from joke shops and online stores such as Amazon. They come in many sizes and colours. The larger sizes are ideal for outdoor conceptual or fashion shoots if you want a big smoke display, or in a location where the smoke can dissipate quickly. However they build up a lot of heat, which can damage the china. For what we need, the smallest pellets will do the job fine.

Choose smoke pellets with a colour that go, or contrast nicely, with your background paper and remember to work in a well-ventilated area such as a porch or conservatory, with the windows open. Failing that, outdoors will work providing it's a calm day. It also goes without saying that you shouldn't use family heirloom or your wedding china for this technique, because accidents can happen and cracks and stains can form on the teacup no matter how careful you are.

You'll need your camera and standard lens as well as an off-camera flash – preferably diffused through an umbrella. Alternatively, you can use natural light, provided that you can shoot with a fast enough shutter speed to freeze the smoke and get good definition. A remote

### ESSENTIAL KIT



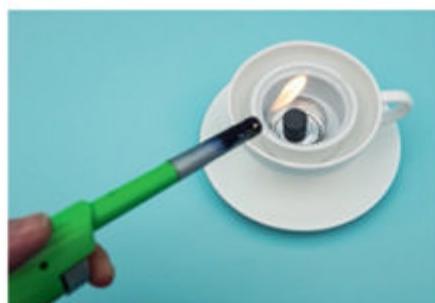
release comes in handy, too. You'll also need a teacup and saucer, obviously, as well as a small heat-proof receptacle that fits within the teacup. I also place the pellet within the metal lining of a tea light or tin foil. Finally, I put a baking tray underneath my paper background to prevent any heat from scorching the paper and table underneath, and always have a small fire extinguisher to hand, just in case! You're all set – here's how to brew up a storm of your own...



**1 CHOOSE A LOCATION** A well-ventilated area free from soft furnishings is ideal; the pellets can stain and leave a nasty smell. Make sure that the room is free from smoke alarms too. Choose an uncluttered background – a roll of paper is perfect. Set your camera on a tripod and, if using flash, position it high up, firing through an umbrella or softbox. Position your teacup in place.



**2 SET UP** Select manual mode and choose an aperture around f/13. Go for a shutter speed between 1/80sec and your camera's sync speed – the faster you go, the less smoke movement will be captured. Set your flash to 1/8 power. If using natural light then a wider aperture or higher ISO will be required to retain definition in the smoke. Take a test shot to check the exposure.



**3 LIGHT YOUR SMOKE PELLET** Set off your smoke pellet inside the heat-proof liner within your teacup. Light with a gas match or extra long match, as the smoke can dye your hands. Be ready with your remote or if you have an assistant, get them to light the pellet so you can fire the shutter. Smoke pellets burn quickly, so using your continuous burst mode will increase your chances.



**4 ALLOW EVERYTHING TO COOL** Open any external windows and doors to allow the smoke to vent. Even small smoke pellets produce a good amount of heat, so allow plenty of time for everything to cool before touching anything. Dispose of the ash carefully, but only after it has cooled fully. In fact, now is the perfect time to get on with processing your images.

### POSSIBLE PROBLEMS



#### 1) Watch for drafts

Working in a draft will lead to the smoke blowing out of frame and you missing the composition you were looking for. Choose a day with no wind so drafts won't blow in from the open windows.



#### 2) Bowl too high

Make sure the heat-proof dish you choose sits low enough inside the cup so it won't be seen in the final image. Alternatively, choose a lower vantage point to capture the image from.



#### 3) Poor cropping

It's important when setting up your camera to allow room for the smoke and not choose too close a crop; you will end up losing all the movement from the shot if you haven't allowed space for smoke.

## THERE'S A STORM BREWING

"I've added two textures to my final image, before using a Layer Mask to hide them from the cup and smoke."

Exposure: 1/80sec at f/16 (ISO 200)



# SHOOTING STARS

THERE'S A WHOLE GALAXY OUT THERE JUST WAITING TO BE PHOTOGRAPHED! LONG EXPOSURE EXPERT ANDREW WHYTE SHOWS YOU HOW EASY AND REWARDING IT CAN BE TO CAPTURE STAR TRAILS...

CAMERA: NIKON D700 / LENS: NIKON AF-S 17-35MM F/2.8D

**T**HE CLEAR NIGHT sky is one of the most captivating views you can enjoy. Civilisations have gazed at the stars for centuries, but only relatively recently has it become possible to photograph these majestic views without specialist equipment. In fact any DSLR or CSC, plus a tripod, is all you really need.

Star trails are recorded using long exposures. Our planet constantly spins, so as stars make their way through the night sky, each one is recorded as a pinprick of light, etching its path into the image for as long as the shutter is open. Trails can appear curved, circular or even fairly straight,

depending on which direction you face and your choice of focal length. Look north to include Polaris and you'll get circular trails; point south and they appear more flat.

There are two approaches you can take: a single, continuous exposure or stacked, multiple exposures (which means taking and merging multiple frames of the same composition). It's the latter we're covering here – stacked images contain less noise, exposure times are relatively short and the stacking software is free!

Star trails are best photographed in context with the landscape, so plan for an interesting foreground subject rather

than simply pointing your camera at the sky from your back garden. Think monuments, pylons and skeletal trees and you're off to a good start. Try to get as far away from streetlights as possible to reduce the amount of light pollution – the stars will be more visible, and you'll lower the chance of colour casts on the landscape. Wherever you end up, dress appropriately: a warm hat and waterproof boots are a must.

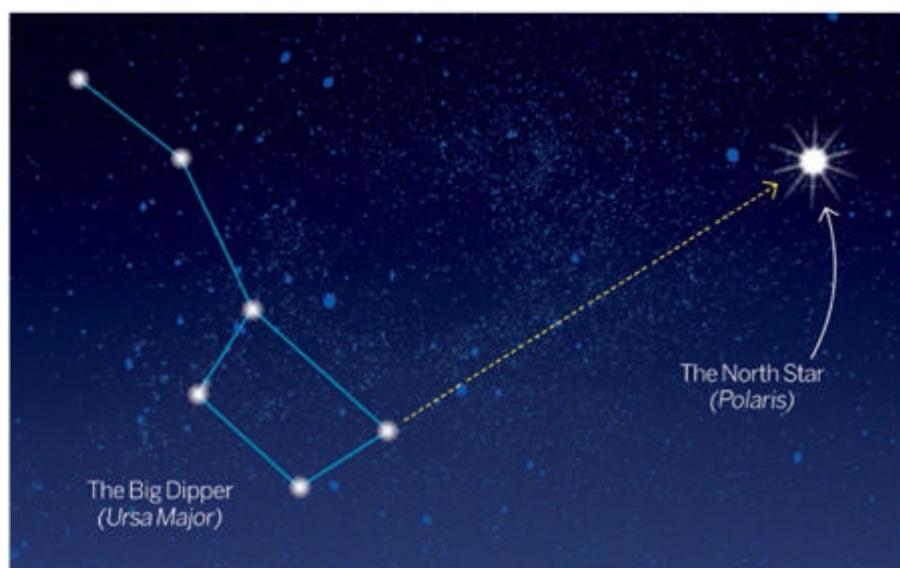
Check the weather and lunar forecast before setting off, too. A clear, cloudless sky with a waxing crescent moon is best – the moon will add illumination and colour to your scene without washing out the sky.





## ESSENTIAL ACCESSORIES

Alongside your camera and tripod you'll need a couple of extra bits of kit that will make shooting star trails easier. A remote release (1) with a lock is essential, as is a bright torch (2). A fully-charged battery (3) and empty memory cards (4) are important too. Finally, make sure your phone is fully charged (5) – it's handy for navigating the night sky, contacting anyone in case you get into trouble and keeping your sanity while you wait for the camera to do its thing!



**1 LOCATE POLARIS** Arrive on location and set your camera onto the tripod while your eyes adjust to the darkness. The star trails will circulate around Polaris in the north, so navigate the night sky and locate the star. Line your composition up to include your element of foreground interest in accordance with the location of Polaris.

### There's an app for that

Night Sky, for iOS and Android, allows you to easily navigate the night sky. Simply look up at the sky via the phone's screen and the names of the stars and constellations are clearly marked. It even tells you which satellites are passing overhead – the ISS will show up in your star trail images if you time it right! [www.icandiapps.com](http://www.icandiapps.com)



### STARS IN YOUR EYES

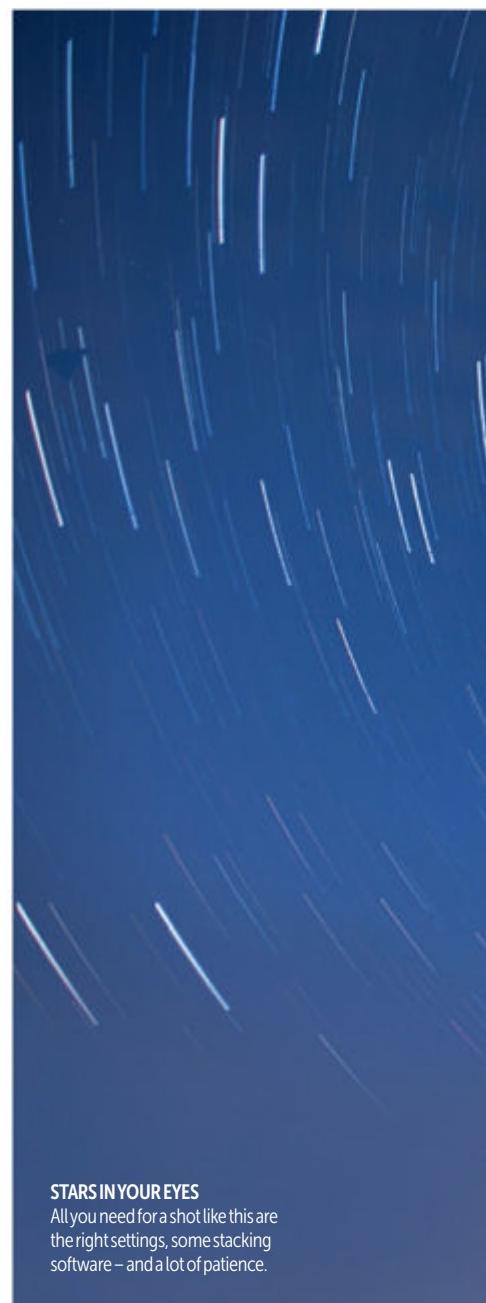
All you need for a shot like this are the right settings, some stacking software – and a lot of patience.



**2 FOCUS** Use a torch to illuminate your foreground interest and use autofocus to lock on to it. Once focused, switch to manual focusing to prevent the autofocus from hunting later. Shine the torch around to fine-tune the corners of your composition. Include plenty of sky – it'll look boring now but comes to life when it's filled with trails.



**3 DIAL IN THE SETTINGS** Make sure that Long Exposure Noise Reduction is turned off and set your camera to shoot in JPEG. Then, select manual mode and choose your widest aperture – f/4 or faster, if possible. Choose a shutter speed of 30 seconds and ISO 800. Select a White Balance of around 3200K – your camera's Tungsten preset will suffice.



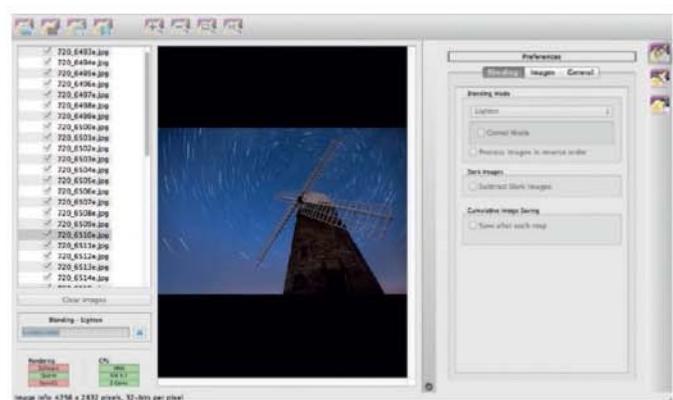
**4 TAKE A TEST SHOT** Connect your remote and take a test shot. Check the LCD to assess composition and check exposure of both the stars and foreground. If necessary, increase your ISO. If your test shot is too bright, lower the shutter speed to 15 seconds or drop down to ISO 400. Take another test shot and adjust again if required.

**LENS CHOICE**

Stars are quite faint, so choose a lens with a wide maximum aperture – f/4 or faster, preferably. An ultra-wide-angle zoom will allow you to include more of the night sky, and will also minimise the challenge of achieving a good depth-of-field.



**5 START SHOOTING** You're ready to shoot! Set your camera to high-speed continuous mode, press the remote release and lock the button in place, as you would for a Bulb exposure. The camera will continue to fire until you either tell it to stop, or run out of battery or memory. The longer you leave it, the longer your trails will be.



**6 STACK THE IMAGES** Back at your computer, download StarStax X from [www.starstax.net](http://www.starstax.net) – it's free, multi-platform and fast. Once installed, select and open the JPEGs for your star trail, set the Blending Mode to Lighten and then click the Start Processing button. You'll get a notification once it finishes, at which point save the stacked file.

# Easy collages in Elements

CREATING PHOTO COLLAGES IS A GREAT WAY TO SHOW OFF MULTIPLE IMAGES AT ONCE, BUT THEY CAN BE TRICKY TO PRODUCE. TAKE THE COMPLEXITY OUT OF A COLLAGE BY USING ELEMENTS 12'S AUTOMATED SOLUTION



ONE OF THE MOST effective ways to display a collection of images as one is a collage. They can be used to tell the story of a day out, event or family holiday. They can also be used to tie together several images with an underlying theme or topic. The problem is they can be tricky to put together manually. Not only do you have to load all of your images at once and decide on a layout, but you then have to resize and crop each image to the right size and shape to fit!

Elements offers a quick and easy solution. Sure, it's not as flexible as creating your own

collage from scratch, and you are limited to a set number of sizes, layouts and borders, but it is much easier to do – less time spent in front of a computer and more time spent out shooting can only be a good thing!

For the purposes of this tutorial we've used Photoshop Elements 12, though earlier versions of Elements offer very similar functionality, albeit with less options for customising. As an Elements user this is your chance to be smug – the full version of Photoshop doesn't offer the Photo Collage option! Let's get stuck in...



**1 CHOOSE YOUR IMAGES** Open the Elements Organizer and click on *Import* in the top left – from here you can either import files from your computer, or directly from your camera or card reader. Once imported, hold down the *ctrl* key (Windows) or *cmd* key (Mac) and select the files that you want to include in your collage.



**2 SELECT THE SIZE** Once done, click on the *Create* menu in the top right and select *Photo Collage*. In the Photo Collage window, choose your output size – different sizes will have different layout options available. We've selected *12.00 x 12.00 inches* for now. Click *OK* and Elements will start putting together your collage image.



## CREATE YOUR OWN DESIGNS

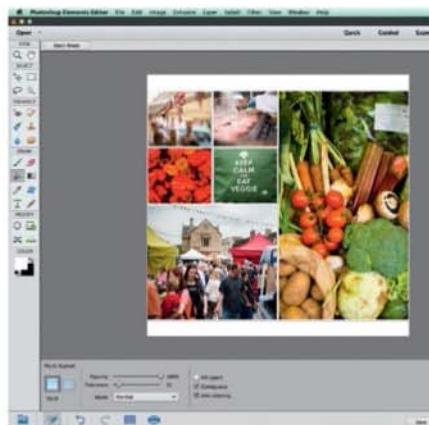
The choice of preset layouts that Elements offers depends on the number of images that you've selected in the Organizer and the output size that you choose in step two. However, each of these layouts are merely templates, so feel free to get in amongst it and move the frames and images around to suit your needs and come up with your own layouts and designs.



**3 CUSTOMISE THE COLLAGE** The images will be displayed in a jumbled format. You can add extra images into the boxes by clicking on them. Single-click on an image to adjust the frame, and double-click to adjust or change the image within the frame. To bring an image to the front, select it and use the *Arrange* menu to select *Bring to Front*.



**4 CHANGE THE LAYOUT** To add order to your collage, click on *Layouts* in the bottom corner. Choose a layout that you like and double-click on it. You can rearrange the layout to suit your tastes, as in the previous step. Blank space is filled with a background – to change this, click on *Graphics* in the bottom corner and choose a different one.



**5 TAKE MORE CONTROL** If you want more advanced control over your collage, click on *Advanced Mode* in the top left. You can then click on *Layers* in the bottom-right corner and edit the individual layers. Here, I've opted for a plain white rather than a textured background by using the Paint Bucket Tool on the Background layer.



**6 SAVE YOUR WORK** By clicking on the *Save* button at the bottom of the window your collage will be saved as a Photo Project Format (.pse) file – this allows for further editing. To save for web use go to *File>Save for Web*. In the window that opens set the *File Format* to **JPEG** and *Quality* to **100**, before clicking *Save*.

# Tych Panel 2

WANT MANUAL CONTROL OVER YOUR DIPTYCHS, TRIPTYCHS AND COLLAGES? TYCH PANEL 2 IS A FREE PHOTOSHOP EXTENSION THAT MAKES CREATING THEM HASSLE FREE, WHILE STILL GIVING YOU CONTROL. HERE'S HOW TO USE IT...

**E**VERY SO OFTEN you'll come across a plug-in, piece of software or extension and you'll wonder why the functionality that it offers doesn't come with Photoshop in the first place – Tych Panel 2 is a perfect example of this. Tych Panel 2 is a free extension for Adobe Photoshop CS5, CS6 and CC and was created by Swedish wedding photographer Reimund Trost of Lumens Bröllopsfotografi as a solution for putting together quick and easy diptychs and triptychs to present on his wedding photography blog.

First of all, to download Tych Panel 2, visit: <http://lumens.se/tychpanel/>. Once downloaded, Tych Panel 2 needs to be installed using Adobe Extension Manager. If you don't already have this, it can be installed for free from [www.adobe.com/exchange/em\\_download/](http://www.adobe.com/exchange/em_download/). Once done, simply follow the installation procedure as instructed and the next time you open Photoshop go to **Window>Extensions>Tych Panel** to enable the Tych Panel palette. You're all ready to go...

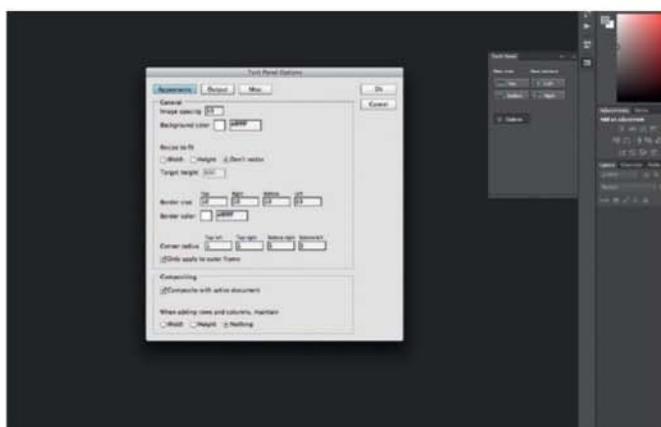
## Know your options

Tych Panel's Options area contains settings that you may find useful. The *When adding row and columns, maintain...* option is handy for those uploading to blogs and websites that use a fixed width or height. You can also make the collage panels editable by enabling *Smart Objects* in the *Misc* tab, allowing you to reorder or swap images without starting over again.

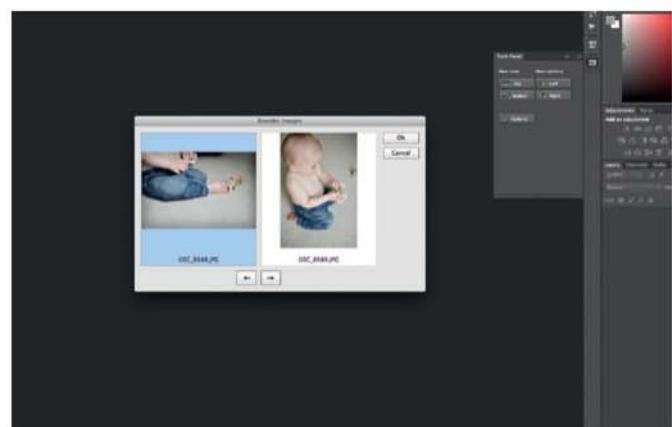


## WHY NOT TRY...

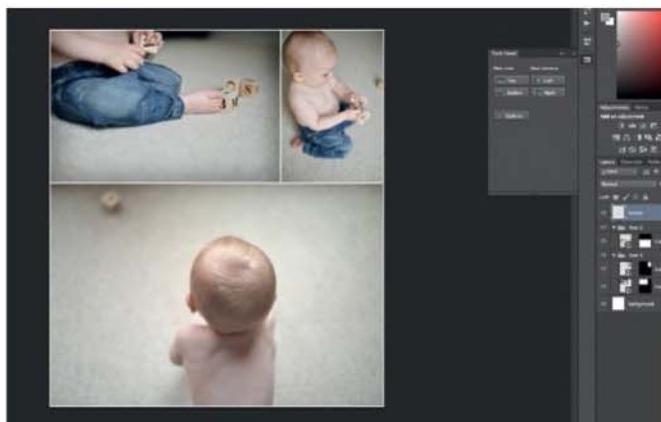
As an alternative to Tych Panel 2, it's worth considering standalone software BlogStomp. It's not free, but it does allow you to create collages, diptychs and triptychs without Photoshop and with minimal fuss. BlogStomp looks at the number of images, along with their orientation, and figures out the best way to arrange them. You can randomise the order of your images, but you can't reorder them manually. BlogStomp costs \$49 for two installations – so you can split the cost with a friend! [www.blogstomponline.com](http://www.blogstomponline.com)



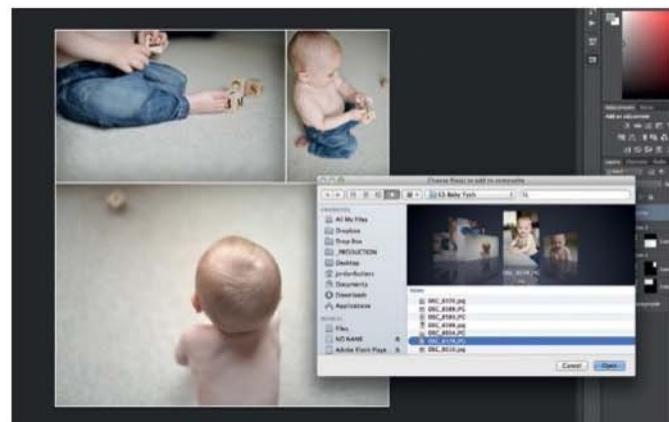
**1 SET THE SPACING AND BORDER** In Tych Panel 2, click on the **Options** button. Use the **Appearance** tab to set the **Image spacing** and **Border size** in pixels. Selecting the same spacing and border tends to look best. You can also change the spacing and border colour. Use the **Resize to fit** options to set the final size of your collage, too.



**2 SELECT YOUR IMAGES** The extension works by adding images in rows and columns – a row or column can comprise single or multiple images. To start off, create a simple diptych: click on either the **Top** or **Bottom** buttons under **New rows** and select your two images. In the **Reorder images** panel, set the image order as desired.



**3 ADD A NEW ROW** Tych Panel 2 will start to put your collage together using Layers and Layer Masks. Once done, you can add to your diptych should you wish by adding another row or column. We want to add a single, larger image below our diptych. Click on the *Bottom* button under *New rows* and select the image of choice.



**4 ADD A NEW COLUMN** The next row or column will be scaled to suit the existing images in the collage. This allows you to add as many additional rows and columns as you wish. We've chosen a portrait-format image to finish off our collage – click on the *Left* or *Right* button under *New column* to add the final image. All done!

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**FamilyAlbum**

# JUST THE TWO OF US

Our regular guide provides essential advice from experts to help you produce fantastic family photographs.

London-based Nikon ambassador Kate Hopewell-Smith shares her approach and techniques for photographing partners so that you can overcome the challenges of shooting couples





1



3

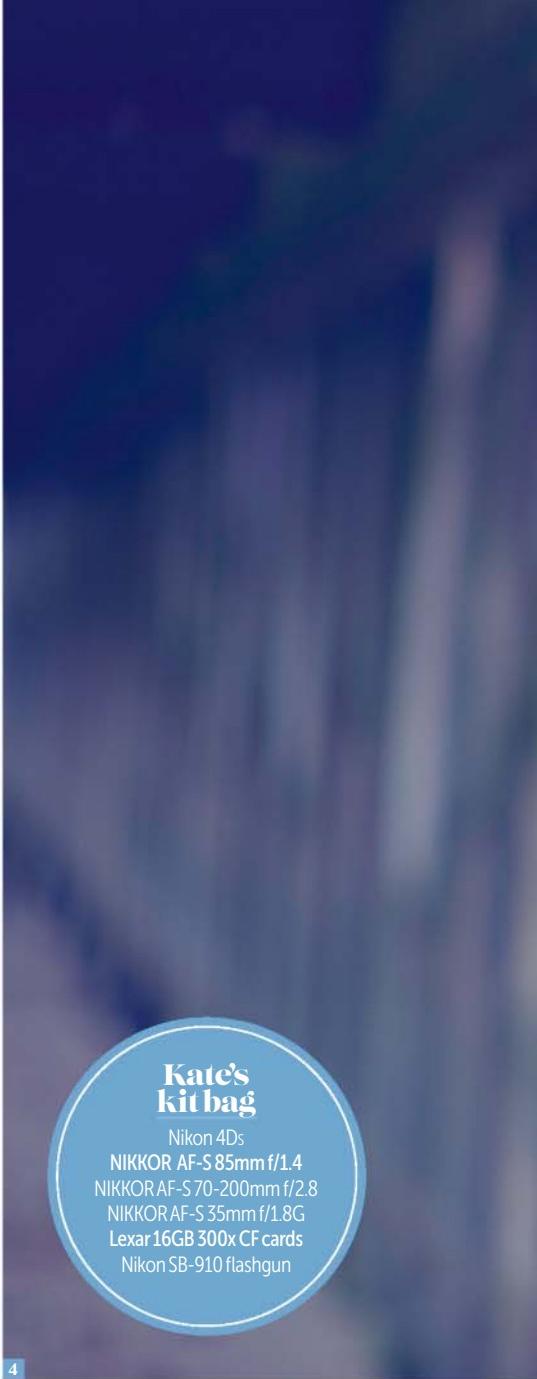
LOCATION IS ONE of the most important elements of a shoot for me, and London is brilliant. As Gemma and David are near Newcastle we discussed the location and outfits over Skype, and it was while I was talking to them and researching London's South Bank on Google that I came across its fountain. And then I became obsessive, like I often do about a location, and the whole shoot became about leading up to that fountain come 'golden hour'.

I like an element of control to my shoots and while I don't need to know the location, I need to know that I have options. We were so lucky with the weather too, as it was such a clear day. Two or three years ago I would have been frightened by a sunny day but now I know it offers so many creative opportunities and a 'golden hour'. I knew I wanted to be at the fountain in time for the sunset so I used my Golden Hour App to tell me where the sun was going to set at the time I wanted to shoot – it was over the River Thames, which was great because it meant I could get more time with the light.

In cities you tend to lose most of the sunset much faster than you would in flat countryside because the light disappears behind buildings, but it gave me an idea of what time I needed to be at the fountain.

Even though location is important, the light is what makes a location so I never decide exactly where I'm going to shoot until I arrive. I don't recce places anymore for that reason, as while I need to know that I have lots of options I need to see exactly what the light is doing on the day. We worked in two main locations: Soho, as there's a little tapas bar there that they love, and the area around St Paul's Cathedral, the Millennium Bridge and along the South Bank beach, which I checked tide times for.

I tend to shoot light in three ways: flat light, where it hits the subjects full-on and leaves no shadows on their faces, which could be in full sunshine or underneath top shade; contre-jour, or backlighting; and side-lighting, which is the most difficult to do with a couple. A common problem I see a lot when people photograph couples is that they position them facing each other ➤



4



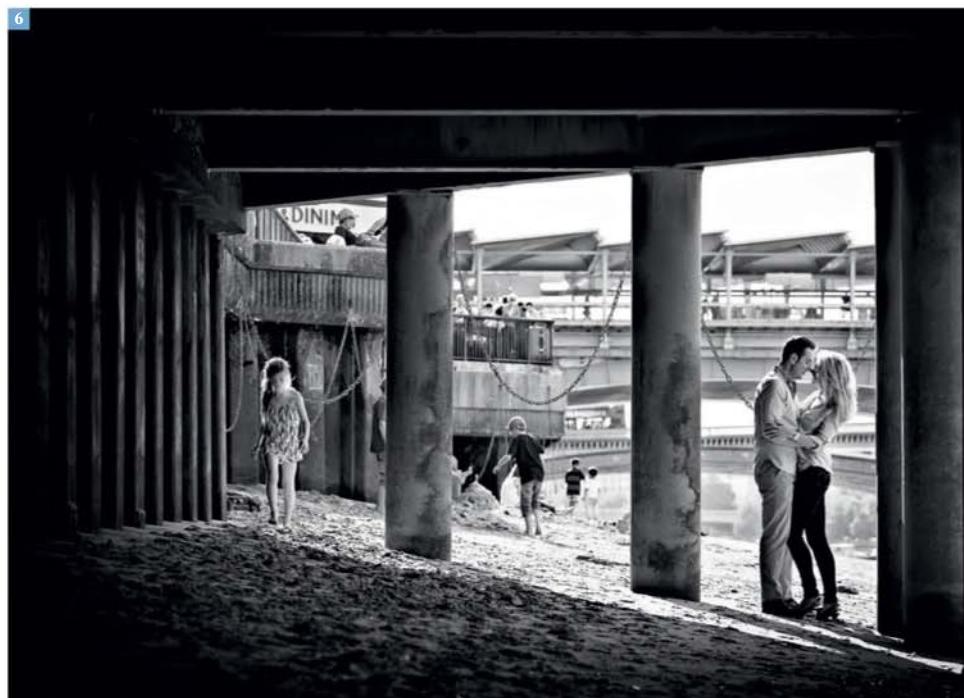


**182)** I was forced to shoot side-lit on the bridge due to the time of day, which is why Gemma's backed in to David so that they're both facing the sun. I used a variable grad filter and my Nikon D4s set to ISO 64 so I could shoot at 1/15sec at f/10, and asked the couple to stand really still while I captured the moving people.

**3)** The light was beautiful as it was hitting the buildings opposite the tapas bar and bouncing it into the restaurant. It took ten minutes of waiting for a black cab to pass by, but I eventually got the reflection in the window that I wanted.

**4)** You can get beautiful photos in full sunshine, but you need to expose the skin as a mid-tone by underexposing the scene by at least two or even three stops. In full sunshine, the skin will often be overexposed.

**5&6)** If either of them is worrying about what to do with their hands, just tell them to hold each other. Photographing people is all about making them look and feel comfortable.





1

1) I love images where the couple are looking intently at each other and this is a prime example. They're too close for them to focus on each other but it makes a great image. The moments after a kiss can make the best shots.

2&3) I always say the camera can read touch and expression. It's so important for a couple to touch more on a photoshoot.

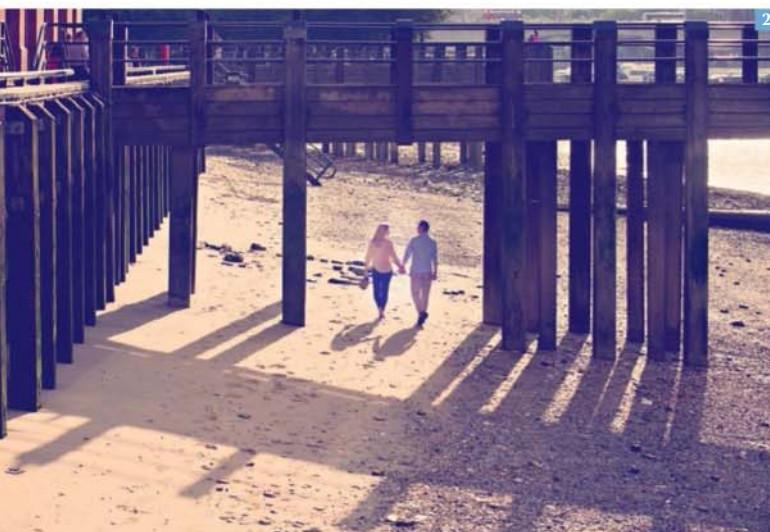


in side-lighting, so one person is always in shadow. Depth-of-field is another problem to overcome: I like to shoot with open apertures on my NIKKOR 70-200mm f/2.8 and you need to be quite careful with such a long focal length. A lot of people also get caught with what aperture to use for adequate depth-of-field when shooting a couple, when two equally important factors to consider are the focal length and whether you're zoomed in, and your distance from the subjects. I'm very aware when shooting a couple that f/4 means nothing unless I take into consideration whether I'm shooting at 180mm or 200mm, or if I'm three metres away as opposed to ten.

While I mainly use natural light, I do use fill-in flash. I set my ambient exposure exactly as I want it so the shot looks fine in-camera with the flash off. I then set my Nikon SB910 to TTL BL (fill-in flash mode), with my Nikon

D4s to high-speed sync (with Canon that setting is on the flash not the camera), and then I start with minus-two flash exposure compensation. Although I'm bare-bulb with the flash pointed directly at them, the effect is really subtle and just lifts the skin tone.

One of the main stumbling blocks when photographing couples is posing and I always say the camera can read two things: touch and expression. It's so important for couples to touch more during a photoshoot than they might do normally, as touch is what differentiates partners from siblings. Normally if you say to a man, 'I don't want her to look like your sister', he understands completely. Also, I've learned that when a man is saying something lovely to a woman they won't look at them when they're in front of a camera so they look disconnected, despite the fact she'll remember that moment because he's said something



2



3



6



4



5

4) Photographing couples is all about showing them loving each other. When you're worrying about where their hands are you're not concentrating on their expressions. 5&6) This fountain shot was really difficult to get as it's completely natural light with the sun coming into the lens, causing autofocus to hunt. Water was drenching us all and the sunset was fading fast. I had three minutes to get the shot!

## Couples: Q&A

### Should I ask them to kiss?

I never ask them to kiss, but say if they feel like loving each other to go for it but to keep it light. No-one really wants to see a big kiss on camera.

### What can I tell couples to make them feel comfortable?

Tell them what you want, and explain that what feels right on camera is very different to what feels right in real life. They need to be told that it looks great, because they won't think it does.

### What metering mode do you use?

I use manual mode and evaluative metering. Often I expose for the highlights when in full light or side-lighting, and underexpose two stops under the camera's suggested metering.

## "Body language is important. I want to capture the couple's relationship, not a flow of poses"

gorgeous. I shoot 90% of a session without the couple looking at the camera but either looking at each other or away from the camera, unless I ask them otherwise. Natural expressions are not half as hard to achieve as people think – you just have to explain what you want from them.

I love images where a couple are looking really closely at each other – so close that they cannot actually focus on one another. It's important to tell the couple this beforehand, because the natural reaction for getting this close to someone is to pull their heads back. Body language is more important than a fixed pose. I want to capture the couple's relationship on camera, not a flow of staged poses.

Some couples are very loving with

each other, some laugh a lot and others are quieter, and it's really important to me to capture their personality rather than of set shots that come from a workflow of poses. When you're worrying about where their hands are, you're not concentrating on their expressions. And if either of them doesn't know what to do with their hands, just tell them to hold each other. I don't agree with the old school rules about hand or head positions – who cares if the backside of the man's hand is facing the camera? It's so out of touch with shooting lifestyle images on location. Photographing people is all about making them feel and look comfortable, so I only pose them very loosely around how I want them to be lit and encourage them to engage with each other. I tell them, 'If I'm

not speaking, it's all good'. There are a few guidelines I adhere to, even with loose poses, and for men it's easy as all they need is a masculine, firm stance. Women ideally need to push their weight away from the camera in a 3/4 pose. Unless a woman is much smaller than her partner, I don't position them with both shoulders direct to camera as it will make her look her widest.

Photographing couples is about showing them loving each other, but it's much harder for a couple to relax and be intimate if you are only a metre away from them on a prime lens – that's why I love to use my NIKKOR 70-200mm f/2.8. Give them the space and privacy to feel comfortable and the images will happen naturally. [www.katehopewellsmit.com](http://www.katehopewellsmit.com)

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# Gear

PHOTO KIT TESTED & RATED BY EXPERTS

## SONY A7R

A 36.4-megapixel, full-frame sensor in an all-metal body: the Sony Alpha 7R certainly looks the part, but is it worth the money? We find out...



### Plus

**PHOTO NEWS:** All the latest gear and tech *Page 86*

**MINI TESTS:** Affordable studio flash and budget editing software *Page 87*

**PANASONIC GH4:** Celebrated by many as the new compact king of 4K video recording, is the Lumix DMC-GH4 any good for stills? *Page 90*

**TAMRON 70-200MM:** The wedding workhorse has an affordable alternative *Page 92*

**PREMIUM TRIPODS:** Six of the best carbon-fibre tripods compared *Page 94*

**PREMIUM HEADS:** A thorough test of heads to suit every budget *Page 99*

**MEMORY CARDS:** Comparison test of the leading memory cards on the market *Page 102*

**HITECH LUCROIT FILTER SYSTEM:** Filters for ultra wide-angle and fisheye lenses *Page 106*

## Sony debuts powerful a5100

SONY HAS ANNOUNCED the latest in its Compact System Camera line-up – the Sony Alpha a5100. Replacing the outgoing NEX-5T, the a5100 packs the same 24.3-megapixel APS-C Exmor CMOS sensor and BIONZ X processor as the a6000, so it seems that image quality is set to be at the forefront of this small but mighty camera. That's not all that the a5100 has in common with the a6000 though; there's also the same 179-point Phase Detection Fast Hybrid autofocus system and identical 100–25600 ISO sensitivity range.

The a5100 features a new 180° tiltable 921K-dot 3.0in LCD touchscreen, Wi-Fi and NFC technology, 1080/60p Full HD video capabilities, built-in flash and will be available in white, black or brown colour options. Absent from the a5100's specification list is the electronic viewfinder and 11fps burst found on the a6000, though the a5100 does boast a not-too-shabby 6fps. It's also a chunk of cash cheaper, too – the a5100 retails for around US\$549 body only, and US\$699 with a 16–50mm Power Zoom lens.

For more info, check out [www.sony.com.au](http://www.sony.com.au)



## Fuji X30 compact released

Following on from the success of the X20, Fujifilm has announced the arrival of the X30, a 12-megapixel 2/3in X-Trans CMOS II sensor compact aimed at 'proenthusiast' users. The X30 boasts a newly-developed Real Time Viewfinder, claiming to be the largest, fastest and highest resolving EVF in its class. The camera is powered by the EXR Processor II and features an equivalent 28–112mm f/2.0–2.8 lens, tilting 3in 920K-dot LCD screen and no Optical Low Pass Filter, as is the trend. On sale now, the X30 will set you back around \$750. [www.fujifilm.com.au](http://www.fujifilm.com.au)

## PINT-SIZED PENTAX

Ricoh has unveiled the classically styled, yet minuscule, Pentax Q-S1. Following on from the tiny Q7, the Q-S1 offers a 12.4-megapixel 1/1.7in CMOS sensor, ISO sensitivity up to 12800, in-body Shake Reduction and Full HD movie recording.

Powered by the Q Engine processor, the Q-S1 realises up to 5fps shooting rate and squeezes a 3in LCD monitor on its tiny 58x105x34mm frame. The camera supports all Q-mount lenses alongside K-mount lenses via an optional adaptor and is available in 40 colour combinations. The Pentax Q-S1 costs \$499 with a 5–15mm lens. [www.pentax.com.au](http://www.pentax.com.au)



## NEW FLASH FROM METZ

Claimed to pack more power than any other TTL hotshoe flash, Metz's new flagship model – the Mecablitz 64 AF-1 looks set to be a winner. With a Guide Number of 64 (ISO 100 @ 200mm) and 24–200mm zoomable flash head, the Mecablitz 64 AF-1 offers plenty of punch and is said to be capable of extremely fast recycle times, thanks to a new RAPID feature, ensuring you never miss a shot. There's also master and slave functions, a large touchscreen control and a secondary flash tube built into the body with variable power for adding a touch of fill light. The Metz 64 AF-1 is available in Canon, Nikon, Sony, Pentax, Olympus and Panasonic fitments from around \$US450. [www.metz.us](http://www.metz.us)



## IN BRIEF

### ON A PLATE

Introducing the UltraPlate, from Joby. Sling-style camera straps and tripod plates were previously incompatible – not any more! Alongside the standard 1/4in-20 screw mount, the UltraPlate also features two additional mounts, allowing you to fit a sling-style strap while the plate is mounted. There's an Arca-Swiss style dovetail, but should your tripod system utilise a different fitting, you can mount your existing plate to the UltraPlate – perfect! The UltraPlate is priced at just \$30. [www.joby.com](http://www.joby.com)



### NEW 50MM LENS

Optic specialists Samyang has launched a V-DSLR 50mm T1.5 AS UMC lens. Aimed squarely at those using their DSLR for shooting video, the new lens sits between Samyang's existing 35mm and 85mm cine lenses. The eight-bladed aperture design ensures smooth, attractive bokeh and the fast f/1.4 maximum aperture allows users to keep on shooting in low light. On sale this month, the new Samyang 50mm T1.5 costs around \$750. [www.syopt.com](http://www.syopt.com)



### INNOVATIVE NEW USB

Why is that when trying to fit a USB cable you always try it the wrong way up first? Good news – the USB 3.0 Promoter Group has completed the specification for the next generation of USB connector, USB Type-C, and the connector is reversible! The new standard making its way into devices very soon is good news for photographers for other reasons, too – it will be capable of 10Gbps transfer speeds and can provide 100W power – ideal for speedy photo transfers and recharging devices. [www.usb.org](http://www.usb.org)



## LENCARTA SMARTFLASH 2

200W studioflash / S-fit mount / cooling fan / rapid recycle time

Test: RICHARD HOPKINS

**Price:** \$210

**Accessory fitting:** S-fit mount

**Remote control:** Via USB port or sync socket

**Adjustment range:** Five stops

**Maximum power:** 200W

**Size:** 30cm long

**Weight:** 1.56kg

**Website:** [www.lencarta.com](http://www.lencarta.com)

GETTING STARTED IN studioflash is rarely cheaper or easier than with this Lencarta Smartflash 2, costing only \$210 – half the price of a decent flashgun. If you want to start right with studio lighting, this is the way to go with plenty of power, fast recycling, a cooling fan and bright modelling lamp so you can see what the light is doing and learn fast.

It's small, with the main body only 18.5cm long, and lighter than most at 1.7kg. Build quality is good and there's nothing cheap about the control dials and switches. Rated at 200W, that's ample power for home portraits and it checked

out at f/16 with a 90cm softbox at 1.0m, ISO 100 – generous for 200W. By reducing the flash to its minimum power, it also allows you to shoot at f/2.8. That's a range of 4.8 stops. Power adjustment is easy, too, using the digital readout, or by counting the clicks on the dial at 1/8-stop increments. The modelling lamp is adjusted separately with its own dial, is as bright as more expensive heads and can be dimmed by 2.7 stops. However, the lamp dims momentarily during recycling, which is supposed to be helpful but is actually a bit distracting.

Light output is very consistent shot-to-shot, and colour control is perfectly acceptable too, warming by a hardly noticeable 500K in our tests at minimum power. Recycle time is rapid, timed at under one second on full power and much faster at lower outputs, with a beep to confirm.

The mount is the popular S-fit, opening the door to a vast range of affordable light modifiers to grow into, from softboxes and umbrellas to beauty dishes and snoots. Other features include a standard sync socket, optical slave and umbrella slot, plus the option to plug in a Wavesync radio trigger with remote power control (as illustrated).

### VERDICT

This is quality gear that's easy to use, with a good spec and high performance for very little money. Buy two and it's still better value than most entry-level two-head kits. Highly recommended.

**Overall**



## Photo Commander 12

Photo management / editing and presentation / Raw converter

Test: JORDAN BUTTERS

**Price:** US\$49.99

**System:** Windows XP, Vista, 7 & 8

**Other:** 30-day free trial available

**Contact:** [www.ashampoo.com](http://www.ashampoo.com)

WITH THE AMOUNT of images that digital photographers take nowadays it's one thing staying on top of editing and sharing your best ones, but it's a completely different matter trying to keep images organised. Good photo management software is the key, and Ashampoo Photo Commander 12 is the new kid on the block.

It faces stiff competition, with Google Picasa, Adobe Lightroom, Capture One and, for the time being, Apple Aperture commanding the lion's share of the market. However, Photo Commander 12 has a huge list of features on its side: it supports Raw files, .psd files, video and 3D images, there's scanner integration as well as EXIF data reading, a host of editing and presentation options, and a built-in image organiser and cataloguing system. The full version costs just US\$49.99, too – it sounds too good to be true! Sadly, it is.

While Photo Commander does claim to do a lot of things, using it is not an enjoyable experience. The interface is clunky and confusing to navigate at first, and I don't have as much confidence in the Raw conversion capabilities of the software either, as it was slow to load in large Raw files and doesn't offer the lens corrections of other softwares. There are plenty of editing effects on hand – everything from colour and lighting optimisation through to batch processing and creative effects such as tilt-shift and adding text. There's a huge range of presentation effects, too – calendars, greetings cards, collages, slideshows, panoramas and social uploading. I actually quite liked some of the one-click solution effects available and some of the presentation options are really quick and easy to apply, but many of the editing effects are on the cheesy side, and lack the control that many users will expect.

At \$50, it's cheaper than Adobe Lightroom 5, but also nowhere near as pleasant to navigate – we'd rather pay a little more for a better user experience.

### VERDICT

Photo Commander 12 tries to do everything, and in doing so doesn't really excel at anything. It's hampered by an overcrowded user interface and clunky controls and while some editing capabilities are useful, many won't be of interest.

**Overall**



## SONY ALPHA 7R

A 36.4-megapixel sensor packed into an all-metal, weather-sealed, compact body. Is the Sony A7R the future of full-frame photography?

Test: JORDAN BUTTERS

### SPECIFICATION

Price (body only): \$2499 (guide) / \$1900 (street)  
Image sensor: Full-frame Exmor CMOS  
(35.9mm x 24mm)  
Resolution: 36.4-megapixel  
Maximum image resolution: 7360 x 4912pixels  
AF points: 25 (contrast-detection)  
ISO range: 50-25600  
Shutter speeds: 1/8000sec-30 seconds & Bulb  
Continuous frame rate: 4fps  
Storage: SD (SDHC/SDXC), MS Pro Duo  
Size: 94.4x48.2x126.9mm  
Weight: 465g (including battery and card)

INNOVATION IS A big part of Sony's imaging business. The brand has garnered a large, devoted following by being the first to bring groundbreaking and trend-setting new products to market. They were the first to launch a compact camera packing a 35mm full-frame sensor, and followed this up by simultaneously launching the A7 and A7R, the world's first full-frame, mirrorless compact system cameras, followed later by the A7S, a low-light specialist aimed at video users.

Although virtually identical on the outside, the A7, A7R and A7S are all very different beasts within. While the A7 packs a more than reasonable 24.3-megapixel sensor, and the A7S a lower resolution but higher sensitivity 12.2-megapixel unit, the A7R offers an impressive 36.4-megapixel Exmor CMOS sensor, sans optical low-pass filter. That's equal to the highest megapixel digital SLR currently in production – the Nikon D810. A high-resolution, full-frame sensor in a lightweight, compact body – that's got to be a sure-fire recipe for success, hasn't it?

The first thing that strikes you about the A7R is how comfortable it feels in hand. Despite its slender aluminium frame, the large rubber grip gives you plenty to hold onto, and the camera has a good weight to it – significantly lighter than a pro digital SLR body, yet heavy enough to instil confidence in its build and durability. The A7R has an air of quality to it, from the solid metal dials to the minimalist front design and large central viewfinder hump. Around the back of the camera there's a large and clear 3in tilting LCD screen, a comfortable thumb rest and an assortment of easy-access dials and controls. There's a single card slot on the side, which accepts SD/SDHC/SDXC format,



### PROFESSIONAL APPEARANCE:

A high-specification sensor sits within a well-designed and attractive all-metal frame. Despite its small size, the controls are well laid out and easily accessed.



alongside Sony's own Memory Stick PRO Duo. There's no built-in flash, but seeing as this is essentially a pro body and many pro digital SLRs take the same tact, it's a forgivable omission.

As a digital SLR shooter moving to a mirrorless model, one of the biggest changes to adjust to is the lack of an optical viewfinder. In its place, the A7R features a high-resolution OLED Tru-Finder electronic viewfinder. The viewfinder automatically activates upon raising the camera to your eye, and even focuses the image for you – a nice touch, but one that takes some getting used to. The image is bright and clear and performance is especially good in low light – in fact, I preferred it to an optical viewfinder in this regard. Display lag is kept to an acceptable level and, because the EVF displays exactly what the sensor sees, making quick exposure adjustments on the fly using the exposure compensation dial is a pleasant and rewarding experience.

Should you prefer to shoot using the LCD screen, you aren't left wanting. The large, clear, 2,359,000-dot 3in LCD tilts up 90° or down 45°, allowing you to compose shots at awkward angles without contorting your body to see the screen. There's no touch screen, which would have been a nice addition when navigating the menus, but there is a large assortment of physical controls to the right, so digital SLR users should feel at home.

The A7R's controls are well laid out considering its small size, with the top plate adorned with a metal on/off switch, exposure mode and exposure

compensation dials. The dials rotate with just the right amount of resistance, giving a reassuring click as they turn into place. An additional dial to control aperture is located on the front of the camera above the handgrip, and one to control shutter speed on the rear, close to the thumbgrip. ISO is adjusted by turning the navigation pad control ring, allowing you to quickly and easily change any aspect of your exposure.

Unfortunately the same ease of use doesn't extend to the menu system, which takes some getting used to. Selecting the focus point is frustratingly long-winded, and although you can remap a custom function button to take you to the correct menu, it still isn't as quick as I'd have liked. Previewing the images that you've taken is a button press away, but when you press the zoom button the camera automatically jumps right into 100%, meaning several presses of the zoom-out button to be able to see the bigger picture again. A small annoyance, but an annoyance nonetheless.

Image quality, as you'd come to expect from Sony, is fantastic. The A7R lacks the anti-aliasing filter found in the A7, and images are fantastically detailed and crisp straight out



of the camera as a result. One point to note is that, with such a high pixel count on offer, any slight movement is exaggerated at high magnification; the A7R is certainly less forgiving of poor technique than the lower resolution A7. There's an ISO range expandable up to 50–25600, with noise impressively controlled up to ISO 3200. The A7R is no speed freak, offering just 1.5fps in Standard Continuous mode, or 4fps in Speed Priority mode. You'll need high-speed memory cards to make the most of this capacity too, with the A7R churning out Raw files at around 36Mb each!

The A7R features a 25-point contrast-based autofocus system, as opposed to the traditional phase detection type found in most digital SLRs. Unfortunately, this is the camera's major downfall. The AF system is sluggish and frustrating, taking its sweet time to locate and lock on to targets – even in good light. Using Continuous Autofocus

mode, the A7R struggles to track when shooting fast-approaching subjects. Coupled with the Slow Burst mode, the A7R is a camera for very slow moving or stationary subjects. It's also worth noting that the A7R emits a substantial shutter clack, making it less than ideal for shooting in sound-sensitive surroundings, such as street photography, weddings or newborn portraits. This camera is well and truly at home in a studio environment only.

Connectivity-wise, the A7R boasts both Wi-Fi and NFC. This can be used to send images wirelessly to a tablet or smartphone, or to control the camera remotely via the Play Memories Camera mobile app.

Finally, there's the price. Weighing in at just under \$2500 body-only, the A7R isn't cheap. When compared to the lower resolution A7's \$1699 price tag, you have to question whether you really need the extra file size offered by the bigger brother.

## LENS CHOICE

The Sony A7R utilises Sony's E-mount, although if you decide to use existing E-mount APS-C lenses then you're going to experience vignetting, or a reduced image size. To combat this, Sony has launched a range of full-frame, FE-mount lenses, designed specifically for the A7, A7R and A7S. Choice is limited at present, with just five FE-mount lenses currently available. However, more are on the way this year and next, with Sony eventually aiming for a grand total of 20. There are also optional LA-E3 and LA-E4 mount adaptors, which allow the fitting of A-mount lenses onto the A7R, although some would argue that this added bulk negates the weight and space saving that makes this mirrorless wonder an attraction. Finally, there are third-party adaptors on the market, which allow the use of Nikon, Canon, Leica and more lenses on the A7 system.

## CLOSEST RIVALS

● **NIKON D810:** The recently-announced Nikon D810 follows on from the success of the D800 and D800E. Priced at \$3999 body-only, it's more expensive than the A7R but prices are likely to fall, given a few months. It also offers a 36.4-megapixel full-frame sensor, 51 phase-detection autofocus points and 5fps shooting, so is better suited to moving subjects.

● **SONY A7:** The A7R's smaller and cheaper stablemate. Priced at \$1699, the A7 offers a lower resolution 24.3-megapixel full-frame sensor, but also features 117 phase-detection autofocus points, including 25 cross-type, and 5fps shooting, so is far better than the A7R in that regard. If you don't need the resolution, the A7 could be the better option.

● **CANON EOS 5D MARK III:** Much like the A7 above, Canon's pro full-frame offering features a lower resolution sensor: 22.3-megapixels to be exact. This still produces images up to 5,760 pixels across – more than enough for most people! There's a 61-point autofocus system within, 6fps continuous shooting and full weather sealing too. The EOS 5D Mark III is priced at \$3299 body-only.

## VERDICT

The Sony A7R carries a premium air about it. Offering some nice features, it's capable of superb quality, high-resolution images. It doesn't come cheap at just under \$2500 body-only, and Sony's range of ZEISS FE-mount lenses cost a pretty penny too. Consider the A7 – it's better in terms of autofocus performance, but lacks the megapixel count. The A7R is frustratingly close to being a truly great Compact System Camera, but is let down by a few faults.

Handling	19/20
Ease of use	15/20
Features	18/20
Performance	16/20
Value	17/20

**Overall** **85/100**

## PANASONIC LUMIX GH4

The new Panasonic GH4 offers cinema-quality 4K video recording at the forefront of its design, but how does it perform as a stills camera?

Test: TOM CALTON

### SPECIFICATIONS

Price:	\$1999 (guide price) / \$1499 (street price)
Image sensor:	Micro Four-Thirds (17.3x13mm)
Resolution:	16.05-megapixels
Maximum image resolution:	4608x3456pixels
AF points:	49
ISO range:	200-25600
Shutter speeds:	1/8000sec-60 seconds & Bulb
Continuous frame rate:	12fps
Storage:	SD (SDHC/SDXC)
Size:	93.4x83.9x132.9mm
Weight:	560g (including battery & card)

**A**NYONE WHO is into their cameras will already know just how significant the Panasonic Lumix DMC-GH4 is to the camera world. Being the first Compact System Camera to offer cinema-quality 4K video recording to the masses, it's a product that single-handedly takes home videos to a whole new level by colliding the pro and consumer markets.

With all of this buzz surrounding the camera's cinema-quality video capabilities, it seems that it's quickly been forgotten that the GH4 is, first and foremost, a stills camera. But is it able to deliver both top-quality video and still images in equal measure?

Despite the fact that the GH4 falls into the mirrorless Compact System Camera (CSC) category, the camera itself is largely modelled around that of a classic DSLR design – in fact, if you didn't know much about the GH4 in advance, you'd be forgiven for thinking it was just that. As its name suggests, the GH4 is the fourth camera in the GH line and is successor to the previous GH3 model, taking its place at the top of Panasonic's range of interchangeable lens cameras. Compared to the previous model, aesthetically the GH4 hasn't changed much at all, with its size, weight and overall appearance remaining largely the same – albeit with a shiny new GH4 badge on the front. One small but noticeable addition is that the mode dial has adopted a lock button in the centre (as is the growing trend), which operates like a ballpoint pen – press it once to unlock the dial, and press again to keep it locked in place to prevent it from altering while in your bag.

With its casing constructed entirely from magnesium and finished with a set of weather seals, the GH4 looks and feels like a slick piece of kit. Measuring in with a similar



**PROFESSIONAL APPEARANCE:** Taking its design cues from the larger pro-spec DSLRs, the GH4's sleek exterior and ergonomic control layout make it a pleasure to use.

size and weight to that of an entry-level DSLR, I found the GH4 pleasant to carry around with me during a full day's shooting and it meant that I didn't get the inevitable arm or neck ache like I often do with a heavier DSLR. What's more, despite its smaller size, the GH4 still offers all of the features you'd come to expect with a high-end camera, including rapid 12fps burst shooting and a choice of 49 AF points.

The GH4 will feel right at home with anyone that's used to shooting with a DSLR and ticks all the right boxes in terms of comfort. It has a deep handgrip that's generously coated in a rubberised material and spreads right around the back to the rear thumb rest for extra grip. For added luxury there are two command dials that are used to alter the shooting parameters; one located just behind the shutter button on top of the hand grip, and the other just above the rear thumb rest. There's also a third dial on the back that encircles the D-pad, but this is primarily used for scrolling through the on-screen settings menu. Rather annoyingly, however, some of the rubber moulding on the back of the camera gets in the way of this dial and means that fully rotating it in one smooth motion is a little more fiddly than it ought to be.

With the internal mirror box removed, the GH4 relies on a built-in Electronic Viewfinder (EVF) to help you compose shots (unless you prefer to use the rear screen, that is). The GH4's EVF sports an impressive 2,359,000-dot resolution and resolves a sharp image with realistic colours. By default the EVF is activated by lifting the camera to

your eye, though there is a slight delay as the camera switches from the rear monitor to the EVF. Alternatively, the display can be locked to either just the EVF or the rear screen by pressing the Fn5 button to the left of the EVF. I found myself mainly shooting with the former of these configurations, as I prefer to shoot and adjust settings while looking through the viewfinder.

Just below the EVF is the main LCD screen. This 3in monitor sports a resolution of 1,036,000 dots and is touch-sensitive as well as being fully articulated, allowing it to be pulled out from the body and rotated around approximately 260° to aid with low and high-angle shooting. The touch-sensitivity proved to be responsive and was useful for swiping through images for review, as well as quickly adjusting shooting parameters, while the screen itself resolved a crisp and vibrant image.

As you'd come to expect with a pro-level camera, the GH4 is amass with physical dials and shortcut buttons, most of which can be customised via the settings menu to allow quick adjustments to a host of your most commonly used shooting parameters. In particular I found that the dedicated shortcut buttons for White Balance, ISO and Exposure Compensation extremely handy, as they are conveniently located just behind the shutter button on the top plate and well within reach of my index finger when I needed to access them quickly.

Not to be outdone by its rivals, Panasonic has equipped the GH4 with Wi-Fi connectivity straight out of the box. By downloading the free 'Image app' from



Exposure: 1/8000sec at f/3.5 (ISO 200)

either the Apple App Store or Google Marketplace to your smart device, you can wirelessly transfer your images from the camera without the need for wires. You can also download the 'Panasonic Lumix Link' app (also free) to allow you to wirelessly tether your smart devices to your camera and adjust the camera's settings and take photos and video without having to touch the camera itself. The camera also features Near Field Communication (NFC) compatibility, which enables you to quickly transfer images to and from the camera by rubbing it against other NFC smart devices.

In terms of performance, the GH4 doesn't disappoint; its AF system remained consistently fast and accurate throughout my time with it, locking on to targets with ease – it even performed well in low-light situations and against low-contrast subjects. The camera's ISO range is able to span from 200-25600, and our test images showed that both luma and chroma noise was kept well at bay up to ISO 3200. After this point,

coloured speckling became increasingly apparent, with the highest ISO 25600 becoming predictably saturated and littered with noise – I'd recommend only going this high in a real emergency.

Kitted with the GH4 was the optional 14-140mm kit lens, which is available as a body and lens bundle for around \$2999. I really enjoyed using this lens, especially when shooting in the city as it meant I could switch between a nice wide angle for capturing the entire cityscape, then quickly back to the telephoto end for picking out the intricate details of buildings and even the odd candid street portrait. The resulting images showed good levels of sharpness at both ends of the lens, while the built-in Power O.I.S (Power Optical Image Stabilisation) ensured that my images remained free from the effects of camera shake. The Auto White Balance setting also deserves a mention as it kept my images looking natural and correctly balanced in a variety of different lighting situations.

## 4K VIDEO RECORDING

The GH4 offers the choice between UHD 4K (3840x2160 at 24p, 25p or 30p) or Cinema 4K (4096x2160 at 24p), which takes a 1:1 crop from the camera's 4608x3456px sensor. There's also the option of recording 1080 HD footage in a choice of 24p, 25p, 30p, 50p, 60p and even 96fps, though the latter of these choices does seem to reduce the overall sharpness of the footage. Footage is recorded in a choice of MOV, MP4 or AVCHD formats and the camera has built-in mic and headphone inputs for recording a monitoring audio, as well as an AV Out and HDMI output for attaching peripheral monitors. Alternatively, serious videographers may also be interested in the Panasonic DMW-YAGH interface unit (£1,799) that features four 4KSDI outputs, a timecode sync port, two XLR audio input with an independent volume control for left and right channels, as well as an external power input.

## CLOSEST RIVALS

● **CANON EOS 6D:** Priced at \$2169 (body only), the Canon EOS 6D offers a larger full-frame 20.2MP sensor than the GH4, though it is noticeably bigger in size and heavier in weight. It has built-in Wi-Fi and GPS connectivity, as well as a larger ISO range of 50-102400, though it only offers HD video recording.

● **NIKON D610:** The D610 from Nikon is priced at \$2299 (body only) and houses a full-frame 24.3MP sensor. It has 39 AF points and an ISO range of 50-25600. Wi-Fi connectivity is available but only with the purchase of a WU-1B adaptor (\$99). Like the Canon EOS 6D, only 1080p video is available.

● **SONY ALPHA 7S:** The Sony A7S (\$2,799) is a full-frame CSC, sporting a 12.2MP chip. Its ISO range is broader than the GH4's at 100-102400 (expandable to 409600), though it has a lower resolution 3in, 921,600-dot screen. It supports Wi-Fi and NFC connectivity and is able to record 1080p and 4K video.

## VERDICT

The GH4 delivers high-quality images with top-tier AF performance to boot. It's comfortable, intuitive and packed with features. Priced at \$1999 (body only) it is on the pricey side – for a few hundred more you could pick up a full-frame DSLR like the Canon EOS 6D (\$2169 body only) or Nikon D610 (\$2299 body only). Inevitably, it's the GH4's 4K video that'll make or break the deal for you – if the idea of recording in 4K gets your heart racing, the GH4 is a top choice, but if video's not your bag then a full-frame option would be better suited.

Handling	19/20
Ease of use	18/20
Features	19/20
Performance	18/20
Value	16/20

**Overall** **90/100**

# TAMRON SP 70-200MM F/2.8 DI VC USD

It's becoming harder and harder to distinguish between the quality of premium f/2.8 70-200mm lenses. Trent van der Jagt delves into the ghost in this shell to find out how it holds up.

TEST: TRENT VAN DER JAGT

The 70-200mm range is an ever-popular one. Versatility without ever breaking your hump. Whether you're shooting portraits, sport or nature, a quality 70-200mm lens is a must for any photographer's kit. Sure, if you're looking to specialise in certain fields such as nature or sport you may have to go bigger, but this range will easily get you over the line for most situations. The usual problem with getting a good quality 70-200mm lens is whether or not it will break the bank. Fortunately the Tamron SP 70-200mm f/2.8 Di VC USD offers everything the big boys can with a considerably smaller price tag.

In the past Tamron has been shafted by purists for being of lesser quality, but with their current ranges easily holding their own and for half the price, it's hard to ignore them anymore. The Tamron SP 70-200mm F/2.8 Di VC USD is an ultra fast telephoto zoom lens for full-frame cameras. Tamron boasts that it's also the most compact lens of its kind, although in the f/2.8 range you can never expect it to be truly "light". With Vibration Compensation and ultrasonic focus motor for quiet auto-focus you can

PHOTOGRAPH BY TREVOR HALL



Exposure: 1/320sec; f/8; ISO 100 @ 91mm



## FEATURES AT A GLANCE: TAMRON SP 70-200MM F/2.8 DI VC USD VS. CANON EF 70-200MM F/2.8L IS II USM

TAMRON
Price - \$1299.95
Focal length - 70-200mm
Maximum aperture - f/2.8
Minimum aperture - f/32
Motor type - Ultrasonic
Lens mount - Canon EF, Nikon F(FX), Sony/Minolta Alpha
Number of diaphragm blades - 9 rounded
Minimum focus distance - 1.3m
Maximum magnification ratio - 0.13x
Filter size - 77mm
Length - 197mm
Weight - 1470g

expect to nail most fast-paced situations with impressive sharpness and quality. The build inside the beast is made up of 23 lens elements including one Extra Low Dispersion glass and four Low Dispersion elements as well as an iris diaphragm with nine rounded aperture blades.

To house all of this and design it to operate f/2.8 throughout all focal lengths means it can be a little bulky (although it is on the lighter side compared to its competitors). This is something of a sacrifice you'll need to make when comparing it to the considerably smaller and lighter (and cheaper) Tamron 70-200mm f/4, but when you see the quality and silky smooth out-of-focus areas, it'll be worth it. The mostly metal build throughout is firm and rugged and can take a bit of knocking around, while the rubber focus and zoom rings respond nicely – although its larger size may throw a smaller camera off balance, so try to use it with a meatier full-frame DSLR.

When focusing, you'll notice that while the zoom ring is a beefy addition that can't be missed, the focus ring can be a little

CANON
Price - \$2599.95
Focal length - 70-200mm
Maximum aperture - f/2.8
Minimum aperture - f/32
Motor type - Ultrasonic
Lens mount - Canon EF
Number of diaphragm blades - 8 rounded
Minimum focus distance - 1.2m
Maximum magnification ratio - 0.21x
Filter size - 77mm
Length - 199mm
Weight - 1490g

small. Fortunately, focusing a rig like this can be somewhat cumbersome anyway so you'll find you will rely mostly on its ultrafast and smooth autofocus. Today, most premium lenses you spend a pretty penny on will offer up a fast focus but coupled with the ultrasonic focus motor, it also offers near silent focusing too.

The main question on most people's lips when looking into this focal range is: f/2.8 or f/4? The first two hurdles to overcome when deciding are weight and price, which can sometimes be hard to swallow. So it's best to look at two reasons why you should get an f/2.8. A fast lens means you can still get tack sharp images in lower light



Exposure: 1/1000sec; f/3.5; ISO 160 @ 200mm



Exposure: 1/320sec; f/8; ISO 100 @ 117mm

## CLOSEST RIVALS

### ● CANON EF 70-200MM F/2.8L IS II USM

Brand lenses are always going to cost nearly twice as much as third party ones but sometimes you just can't topple the king. It may be expensive but with its superior build and glass quality, the Canon is a tough one to beat.

### ● SIGMA APO 70-200MM F2.8 EX DG OS HSM

In all areas, the Sigma is Tamron's true competitor as it too is on the cheaper scale. After a few redesigns over the years Sigma has built something worth being proud of with its tack sharp quality and impressive Optical Stabilisation – but some of the big guns' tech is quickly leaving the Sigma 70-200mm f/2.8 behind.

### ● SONY 70-200MM F2.8 G SSM II

First things first, the Sony is heavy and expensive. That's not to say it's not impressive but as something only really suited to full frame Sony DSLRs, it's a little difficult to recommend above the others on the market.

situations, whether this be at night or – more likely – shooting indoors, and it will also allow you to beautifully isolate your subject from the background while getting a nice bokeh effect. This is thanks in part to the nine rounded blades of the iris diaphragm. Although the subject can begin to show minimal amounts of softness at f/2.8 it's never anything too noticeable. The lens' sharpness is also helped along by its splendid Vibration Compensation that offers up to three stops of compensation, and there is no shooting situation where this isn't a positive.

## VERDICT

Ultra fast, sharp and quiet, the Tamron SP 70-200mm f/2.8 Di VC USD will always be a perfect addition to your kit. Tamron have really gone over and above with this premium lens, with some of the most advanced lens technology under the hood while remaining reasonably priced. Sure it can be a little bulky but you won't find anything smaller on the market – and when you see that silky smooth bokeh for yourself, you'll be sold on going for the f/2.8. Many have stated that the Tamron's main competitor, the Canon EF 70-200mm f/2.8L IS II USM, is the best in its field, and to be honest, that is hard to argue with. But when you're building something this close to one of the market's best lenses and for considerably cheaper, we think Tamron has struck gold.

Handling	18/20
Ease of use	19/20
Features	17/20
Performance	18/20
Value	18/20
<b>Overall</b>	<b>90/100</b>

Gear

# PREMIUM QUALITY TRIPODS

THE BEST TRIPODS ARE CARBON-FIBRE, STRONG, LIGHT AND EXPENSIVE, SO CHOOSE CAREFULLY. HERE ARE SIX OF THE BEST FROM THE LEADING BRANDS

*Test: RICHARD HOPKINS*



**C**ARBON-FIBRE IS the magic ingredient. It's very strong, light and perfect for tripod legs, but it's also expensive. In round figures, a carbon-fibre tripod weighs roughly a third less than a similar aluminium version, but usually costs twice as much.

All six tripods in this review are made out of carbon-fibre, starting from \$365 for the well-priced Benro up to \$1250 for the superb Gitzo. Most are between \$300-\$600, and you are assured of the best design and construction that the manufacturer can muster, with quality fittings and a high standard of finish. They will all deliver many years of excellent service.

Representing most of the big tripod names, we've chosen six of the popular, mid-sized 'classic' designs with three-section legs and a centre-column, and mostly without fancier features like self-levelling or tilting columns. These are the great all-rounders, capable of handling outfits up to 400mm, and extending high enough to suit six-footers.

At the quality end of the market, most tripods are sold without a head. Handily the fitting is a universal 3/8in screw, so you can simply bolt on the head of your choice. And what a choice there is out there – it's easy to spend as much money again here on a wide range of different sizes and designs. We've included a good selection of the best ones straight after this review on page 99.

## CHECKING A TRIPOD

Apart from the really obvious stuff like height and weight, a really good tripod is less about numbers and more about the quality of its design and build. You're looking at how well it functions and what it's like to use.

● **THE RIGHT HEIGHT:** The 'standard' height puts the camera around shoulder level with the centre-column down, so you can see the controls on the top. For the average man, for example, a tripod somewhere in the 130-135cm range will be about right with a head and camera added.

● **CHECK IT OUT:** Try two or three tripods side-by-side and compare them for smoothness, adjustability, precision and stability. Put them up and close them down, then do it again. Adjust the height both up and down, pull the centre-column up and set the legs at different angles. Basically, check out everything that moves, test the locks and do it all a few times.

● **STRENGTH AND STABILITY:** Check mechanical robustness by fully extending the tripod, then while holding two legs, gently push-pull one against the other. Some flexing is quite normal, usually around the joints, but not too much. Then slide a couple of inches of leg back up and repeat. Is there any difference? Pull up the centre-column and check movement around the base.



## KEY FEATURES

- 1) Height: Camera around shoulder level is good.
- 2) Weight: Carbon-fibre is one third lighter than aluminium, but twice the price.
- 3) Leg sections: Three are faster and stronger, four sections close down smaller.
- 4) Leg-locks: Lever-locks are easier to operate, while twist-collars are more robust.
- 5) Leg-angle adjusters: To get down low.
- 6) Rubber feet: Or optional spikes for grass.
- 7) Centre-column: Adds extra height but reduces stability. Usually reversible.
- 8) Foam rubber grip: For comfort/cold weather.
- 9) Universal head fitting: Accepts any type/brand.
- 10) Ballast hook: Attach weight for extra stability.
- 11) Spirit level: Keeps camera straight and square.

## 3-Legged-Thing Frank X5 Evo2

It's not just the marketing campaign that's clever: 3-Legged-Thing tripods are just as smart and often as colourful as the advertising, with bright anodised parts. They're also rich in features on top of all the usual things – included here are reverse-folding legs for more compact transport and storage, a detachable leg that turns into a monopod and an unusually high quality carry bag.

The Frank X5 Evo2 is the top-of-the-range model, weighing a light 1.5kg and standing 136cm without the centre-column extended. That's not particularly high, but good enough for all but the tallest users. The folded length is 56cm, but since this includes the top platform and head, it's effectively a few inches less than anything else in these reviews. When

Street price: \$690

Leg sections: Three  
Height: 37cm  
Centre-column up: 170cm  
Min height: 16cm  
Length closed: 56cm  
Weight: 1.5kg  
Load rating: 12kg  
Carry bag: Included  
[www.3leggedthing.com](http://www.3leggedthing.com)

reverse-folded, the Frank allows a bit more room inside the legs than usual to fit a few different choices of ball head – if you don't opt for 3-Legged-

Thing's Air Hed2, that is.

At \$690, the tripod is good, if not quite as good as the higher-than average price suggests. The leg joints have a bit of flex when at full height, though this is considerably improved by sliding a couple of inches of leg back up – like the Benro and Giotto. The twist-collar locks have a nice, short, positive action.

### BEST FEATURE

As well as folding down very small, there's a monopod conversion



## VERDICT

A good tripod with handy features, like the compact reverse-folding design and monopod option, but expensive compared to Benro and Giotto.

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★
Overall	★★★★★

## Benro C2570F

Benro was one of the first Chinese brands to copy the classic Gitzo Mountaineer, and they did a pretty good job – even down to the paint finish on earlier versions. Gitzo has since made some minor changes, and while Benro has introduced new designs of its own and become an established player, the C2570F hasn't changed at all apart from the lever-locks on this UK version. It's way cheaper than any Gitzo of course, but how close does Benro get on performance?

The spec sheet looks very similar – close in height and closed length, plus the same diameter tubes, with Benro's lighter carbon-fibre showing a 0.3kg weight advantage at 1.4kg. Finish is excellent, everything works smoothly and the adjustable lever locks click home positively. Raise the centre-column and the

### BEST FEATURE

Proven design: light-weight, adjustable lever-locks, great price

ring-lock clamps it solid. The most noticeable difference is in the strength of the leg joints, where the Benro has some minor flex at full extension, lacking the Gitzo's firmness and fine tolerances. The Benro responds well to sliding a couple of inches of leg back into the upper for a more rigid stance, as do most tripods. Is it fair to judge a \$300 tripod against one costing three times that? No, but when they're so similar on paper, it throws up some interesting comparisons.

**Street price:** \$365

**Leg sections:** Three  
**Height:** 141cm  
**Centre-column up:** 163cm  
**Min height:** 33cm  
**Length closed:** 63cm  
**Weight:** 1.4kg  
**Load rating:** 12kg  
**Carry bag:** Included  
[www.benro.co.uk](http://www.benro.co.uk)



### VERDICT

Despite the similar spec it's not quite a Gitzo, but compared to more similarly priced rivals the Benro offers high performance and excellent value.

<b>Build quality</b>	★★★★★
<b>Features</b>	★★★★★
<b>Performance</b>	★★★★★
<b>Value</b>	★★★★★
<b>Overall</b>	★★★★★

## Giotto's Silk Road YTL8383

The new Silk Road design from Giotto's has a smaller top platform so the legs fold down closer together, thus reducing the bulk of the package for transport (by around 30% according to Giotto's). This leaves a much smaller space for the centre-column so that's now Y-shaped, which seems to help it slide more smoothly. The Silk Roaders are a bit taller, yet lighter than average.

The 8383 is middle-of-the-range, and includes the 3D tilting and rotating centre-column. It's fast and easy, taking the camera right down to ground level, and works well – though it isn't quite as solid as the similar Manfrotto.

At 151cm high and 177cm with the centre-column up, it's the tallest here – helped by the slightly steeper-angled legs. There's some flex in the leg joints at full stretch, though

### BEST FEATURE

Overall performance: versatility and price in one slimline package

this is improved by sliding a couple of inches of leg back up. There's still ample height left, and the platform is then very solid. The lever locks are adjustable for wear.

The 8383 is also available without the 3D centre column, as is the 8283. There's very little price difference (they're actually the same at some retailers), so it boils down to the extra versatility of the tilting column set against 0.2kg more weight and a few centimetres extra on the closed length.

**Street price:** \$385

**Leg sections:** Three  
**Height:** 151cm  
**Centre-column up:** 177cm  
**Min height:** Zero  
**Length closed:** 68cm  
**Weight:** 1.6kg  
**Load rating:** 8kg  
**Carry bag:** \$50 extra  
[www.giottos-tripod.co.uk](http://www.giottos-tripod.co.uk)



### VERDICT

Generous height and competitive weight, even with the 3D column, makes a very strong case. All in all this is high performance at a very good price.

<b>Build quality</b>	★★★★★
<b>Features</b>	★★★★★
<b>Performance</b>	★★★★★
<b>Value</b>	★★★★★
<b>Overall</b>	★★★★★

## Gitzo GT2532-S2 Mountaineer

Not the tallest or lightest and certainly not the cheapest, but it's the best. Made in Italy, Gitzo only produces high quality, expensive tripods – there is no economy range because Gitzo leaves that to its sister company, Manfrotto. Both brands are owned by Vitec, a British firm.

At 138cm tall without extending the centre-column it gives a few centimetres away in height to some of its rivals, but it still brings the camera up to a nice working level for six-footers – and the centre-column adds another 28cm on top. At 1.7kg it's also a touch heavier than some, but Gitzo is not about small differences like this on the spec sheet. It's all about quality.

That much is clear the moment you put up a Gitzo – it feels rigid, taut and precise. The leg locks (you only get twist-collars with Gitzo) are

**BEST FEATURE**  
Gitzo gets down fast and low with its centre-column quick-release.

positive and firm, gripping the legs securely so that there is virtually no flex in the joints, unlike just about every other brand around.

Standard features include three leg angles for extra positioning options, and it drops down to 16cm with the main length of the centre-column removed. There's a separate release for this (the serrated ring that's located just below the camera platform), and it works very well, locking fast and firm.

Street price: \$1250

Leg sections: Three  
Height: 138cm  
Centre-column up: 166cm  
Min height: 16cm  
Length closed: 65cm  
Weight: 1.7kg  
Load rating: 18kg  
Carry bag: \$190 extra  
[www.gitzo.com](http://www.gitzo.com)



Digital SLR Photography  
**HIGHLY RATED**

## VERDICT

Quality is never in doubt when you buy a Gitzo, and nor is the high asking price. But is it worth it? Most professionals think so: get a Gitzo and you've got a tripod for life.

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★
<b>Overall</b>	★★★★★

## Manfrotto 055CXPro3

Manfrotto's 055 series tripods have been top-sellers forever, and rightly so, but since everything has been honed into such good shape over the years there's nothing obvious left to improve. Undaunted, Manfrotto has gone for a full-on overhaul and changed or tweaked everything.

Headline features are the new 'power' lever locks, leg angle adjusters with four positions and an improved 90° tilting column that's faster, easier and more sturdy. Plus the dimensions have changed a little, it weighs more and it costs more, too.

But is it actually better? Yes, though not dramatically. The extra weight and cost are undesirable, and those big leg locks are sure to catch on something, but it's certainly a very good tripod that builds on the old model's proven capability.

**BEST FEATURE**  
The centre-column tilts 90° and also rotates – it's quick, easy and secure

It's a good height at 141cm, rising to 170cm with the centre-column, and is very solid. It's not quite as firmly planted as the Gitzo, but it comes second in this group and the new leg locks probably have something to do with that. At 2kg, the weight has crept up quite a bit and it's now 0.4–0.5kg heavier than most class rivals, which is the equivalent of a decent ball head. The price is also now heavier at \$690 – at least \$200 more than some very able alternatives.

Street price: \$690

Leg sections: Three  
Height: 141cm  
Centre-column up: 170cm  
Min height: 5cm  
Length closed: 61cm  
Weight: 2kg  
Load rating: 9kg  
Carry bag: \$100 extra  
[www.manfrotto.com.au](http://www.manfrotto.com.au)



Digital SLR Photography  
**HIGHLY RATED**

## VERDICT

Manfrotto's makeover has worked, with small improvements to an already very good product. The extra weight and cost, however, are less welcome.

Build quality	★★★★★
Features	★★★★★
Performance	★★★★★
Value	★★★
<b>Overall</b>	★★★★★

## Velbon GEO E635D

This Velbon is a good example of a quality, classically designed tripod that does everything well without too many frills. It's light at 1.5kg and has a generous footprint – some 20cm wider in diameter than the Giottos, for example. That robs the Velbon of several centimetres in height, and at 130cm without the centre-column extended it's the shortest of this group. That's just about right with a head and camera on top if you're around 1.75m in height, but a bit low for taller users.

On the other hand, the centre-column is unusually long so ultimately the height is there, and that's very smooth and solid-locking – at the expense of some inevitable stability loss when at full stretch. The centre-column also splits with an easy screw-joint, so the tripod can get down to 13cm

### BEST FEATURE

Solid lever locks, handy leg markings, and feet with screw-back spikes

**Street price:** \$530 inc head

**Leg sections:** Three  
**Height:** 130cm  
**Centre-column up:** 171cm  
**Min height:** 13cm  
**Length closed:** 57cm  
**Weight:** 1.6kg  
**Load rating:** 10kg  
**Carry bag:** Included  
[www.maxwell.com.au/velbon](http://www.maxwell.com.au/velbon)

with the three-position legs in the lowest slot.

The benefit of the bigger footprint is a very well-planted stance, and it's all the more secure with stiff legs and solid lever-locks (adjustable for wear). Handy touches include the two bottom leg sections marked in inches, and rubber feet that screw back to reveal built-in spikes.

This Velbon is only available with a three-way PHD-65D head. It's fine, but a quality tripod like this deserves better.



Digital SLR Photography  
**HIGHLY RATED**

### VERDICT

Excellent quality and very nice to use – firm, smooth, light and easy, with no stickiness or slop. Highly recommended, if it's tall enough for you.

<b>Build quality</b>	★★★★★
<b>Features</b>	★★★★
<b>Performance</b>	★★★★★
<b>Value</b>	★★★★
<b>Overall</b>	★★★★★

## CONCLUSION

This is a hard group to judge – all six have a lot in common and they're all good tripods. The differences are in relative details of operation, or features that will be invaluable to some and hardly used by others.

Let's start with the Gitzo. Is it worth three times more? It's the best here, but no. Ask again after 20 years of hard use, though, when it will still be going strong and backed by Gitzo's renowned service and spares support. It has to be Highly Rated.

The 3-Legged-Thing is a good tripod with no major weaknesses and plenty of appealing extras, but unless you need them it's rather pricey at \$690. Manfrotto's updated 055 model also costs \$690 and combines versatile features with excellent stability, though it's heavier and more costly than most. But it's still a cut above the rest, and wins a Highly Rated rosette.

That leaves Benro, Giottos and Velbon. Of the three, the Velbon is actually the nicest tripod to use – solid, fast, positive. The Benro is also Highly Rated for good performance, low weight, and a great price.

But the Giottos Silk Road is our Best Buy. On top of its value it's tall, light and has that tilting centre column for getting into tight corners. That extends versatility a lot, while adding very little to either weight or price.



# PREMIUM TRIPOD HEADS

A GOOD TRIPOD DESERVES A QUALITY HEAD, AND WE'VE ROUNDED UP SOME REAL BEAUTIES FOR YOUR DELECTATION

*Test: RICHARD HOPKINS*

**S**OME PEOPLE SPEND as much money on a head as they do on the tripod itself, but that's not as mad as it sounds. Cheaper heads often can't take as much weight when tilted, and might make accurate positioning difficult. Fortunately, all tripod heads have a standard 3/8in screw fitting, so a new one just bolts straight on.

A quality tripod head turns a chore into a pleasure and they often add useful extra features too, for accurate framing of panoramas or converting into a gimbal for longer lenses. Some are admittedly expensive, but there are bargains to be had.

There are two types of head for stills photography: ball heads and three-way pan-tilts. Ball heads are more popular for their compact size, speed of adjustment and versatility, while three-ways

vary less in performance and tend to be a bit cheaper.

An important aspect of any head is the camera's quick-release (QR) mechanism. Most better quality heads use the Arca-Swiss dovetail system, which opens up a huge range of compatible accessories. Manfrotto's RC2 system is also good, while some heads come with a choice of QR options.

## HOW WE DID THE TESTS

A quality tripod head is more about smooth and accurate control than brute strength, though they all have plenty of that too. Our tests explored real world use with a variety of camera kit in different situations.

The test outfit included a Canon EOS 5D Mark II with 70-200mm f/4 zoom weighing 1.7kg, without a tripod collar. This is about the heaviest combo that needs the head turning 90°

for vertical framing, as bigger lenses come with a rotating tripod collar. Then we used a much heavier Canon EOS-1D X with 300mm f/2.8 lens, weighing 4kg. This is gimbal head territory, and pushed them hard for sheer strength with the camera/lens hanging off to one side.

The test routine used them in all positions – up and down and flat, balanced and unbalanced, in landscape and portrait – each time framing and then reframing the shot carefully. This quickly showed up which heads were easiest to use, while maintaining smooth precision.

Close attention was paid to lock-down shift – any change between framing up the shot and then locking in position. Cheaper ball heads tend to show some movement here and it's very important for subjects like macro and long lens work where small shifts are more noticeable.



## WHAT TO LOOK FOR

- 1) Main locking knob
- 2) Friction pre-load adjustment
- 3) Panning base, degrees
- 4) Panning base lock
- 5) Drop slot for vertical framing
- 6) Arca-Swiss QR clamp
- 7) Arca-Swiss camera QR plate
- 8a) Safety-stop stud
- 8b) Safety-stop bumper
- 9) Spirit level

### Acratech GP

Street price: \$750  
Weight: 450g  
Ball: 38mm  
Base: 60mm QR System: Arca-Swiss  
[www.acratech.net](http://www.acratech.net)

Minimalist design makes for very light weight and easy cleaning. Cunningly it inverts to create a flat-panning platform (excellent, but needs an Allen key), or flip the clamp over 90° and it becomes a gimbal that works well with lighter telephotos. Chunky knobs are light and super-smooth for good fine control, locking solid in a quarter turn. There's a small left-right shift on lock-down, though Acratech says there's a custom modification to improve this on request. The double-speed clamp screw closes in half a turn and is very good (as fast as a lever-lock). Cheaper versions are available, plus a slim-base model to fit folding, traveller-style tripods.



## VERDICT

Beautifully engineered: light, smooth, strong and versatile. The Acratech GP is almost perfect apart from that lock-down shift – and the rather steep price.

Handling	★★★★★
Performance	★★★★★
Value	★★★★
Overall	★★★★★

### Arca-Swiss P0

Street price: \$499  
Weight: 420g  
Ball: 35mm elliptical  
Base: 54mm QR System: Arca-Swiss  
[www.fishpond.com.au](http://www.fishpond.com.au)

This unique patented design houses three planetary gears that clamp the elliptical ball with great power and precision. The single serrated control ring is finger-light and offers delicate friction adjustment, then locks solid in a quarter turn. It's simple and intuitive, and framing shift on lock-down is zero. Weight is a mere 420g. The upside-down design inherently forms a flat-rotating platform for panoramas and provides weather protection, though it's less easy to adjust when flipped over for vertical framing. Therefore, the P0 really works best with an L-bracket (so loses marks for handling and value), though that's a good excuse to get one anyway.



## VERDICT

Extraordinary design, and extraordinarily good. Unparalleled precision and strength, and very light as well. Better with an L-bracket, though.

Handling	★★★★★
Performance	★★★★★
Value	★★★★
Overall	★★★★★

## FLM CB43-FTR

**Street price:** \$640  
**Weight:** 598g  
**Ball:** 43mm  
**Base:** 60mm QR System: Arca-Swiss  
[www.snapperstuff.com](http://www.snapperstuff.com)

Distinctive looking, with multiple knobs beautifully machined from solid aluminium. The basic F-head has two knobs, the main locking knob with inset friction control plus panning lock, and costs about \$135 less. The FT option adds the top knob that locks-out all ball movement except up/down, and the FTR option adds the bottom knob that click-stops the panning at 15° intervals. So technically, the head shown is an FTR. Ball movement is exceptionally smooth, and the friction pre-load very finely adjustable. The downside is that it takes a lot of twiddling (over two full turns to max lock), and there is very slight framing shift on lock-down.



### VERDICT

Beautifully made, velvety smooth. Main lock is too twiddly and other too-similar knobs are confusing in use. Basic F-head is better value.

Handling	★★★
Performance	★★★★★
Value	★★★
<b>Overall</b>	★★★

## Gitzo GH2780-QD

**Street price:** \$670  
**Weight:** 605g  
**Ball:** 48mm  
**Base:** 58mm  
**QR System:** Various, inc. Arca-Swiss  
[www.gitzo.com](http://www.gitzo.com)

Gitzo uses cast magnesium, light and strong, rather than sleeker-looking machined aircraft aluminium. The egg-shape is typically Gitzo, with the large main control knob inset with a friction pre-load adjuster. It's very smooth and has good control, locking firmly in half a turn and rock solid at three-quarters. High loads are not a problem, though when fully weighted there was a tiny amount of framing shift on lock-down. Gitzo's new QD quick-release device is a masterpiece of over-complication. It accepts Arca-Swiss and also Gitzo's own camera plates (who needs both?) but is very bulky and adds weight and \$240 to the cost. It was marked down for this.



### VERDICT

A high quality head that's easy to use, solid and efficient. The basic version without QR is the better bet and it's cheaper too – you can fit your own.

Handling	★★★
Performance	★★★★
Value	★★★
<b>Overall</b>	★★★

## Induro PHD3

**Street price:** \$420  
**Weight:** 750g  
**Ball:** N/A  
**Base:** 68mm QR System: Arca-Swiss  
[www.profoto.com](http://www.profoto.com)

The Induro PHD3 claims to match the convenience of a ball head with the precision of three-way control. The main knob locks the two pivot joints in sequence as it tightens – first the bottom pivot (in line with the knob) and then the top pivot just above. You can choose which pivot controls up-down or side-to-side movement by the orientation of the base, and then by rotating the top clamp 90° accordingly. It's a cool design (the pricey Arca-Swiss D4m is basically similar) and with all the locks off the camera moves freely in any direction, just like a ball head, while individual planes can also be adjusted.



### VERDICT

Clever stuff from Induro, with great mobility, precision and strength. The main knob is rather stiff though, and the head itself is quite heavy.

Handling	★★★
Performance	★★★★★
Value	★★★
<b>Overall</b>	★★★

## Manfrotto 460MG

**Street price:** \$135  
**Weight:** 420g  
**Ball:** N/A  
**Base:** 60mm  
**QR System:** Manfrotto RC2  
[www.manfrotto.com.au](http://www.manfrotto.com.au)

Made from cast magnesium, it's very light at 420g and compact for a three-way head thanks to stubby rubber knobs that replace the usual extended arms. Therefore, adjustments are made while holding the camera rather than arms to support the weight – basically like a ball head. When tilted at an angle, there's inevitably a bit of sag when you let go, so a little of the accurate positioning advantage of three-way heads is lost. The QR system is Manfrotto's neat RC2, with a slim plate that fits unobtrusively to the camera. It snap-locks easily into place, released by the lever with a safety catch.



### VERDICT

Light and compact, and despite minor design compromises the control advantage of a three-way head remains. At \$135, you can't fault the value.

Handling	★★★★★
Performance	★★★★★
Value	★★★★★
<b>Overall</b>	★★★★★

## Manfrotto MH XPRO

Street price: \$190

Weight: 970g  
Ball: N/A  
Base: 60mm R  
QR System: Manfrotto RC2  
[www.manfrotto.com.au](http://www.manfrotto.com.au)

New to Manfrotto's extensive range, the XPro three-way looks the part with its shiny knobs and red accents. It has a couple of neat tricks too, with handles that slide back on the shaft (as the top handle, shown above) greatly reducing the closed size for transport. Then the two shiny plastic knobs are friction adjusters for improved fine control. They're both handy features, although not quite deal-makers or breakers. In use, the friction controls don't make a huge difference compared to a good three-way head like the Manfrotto 804 at half the price, and it's no smaller than the Manfrotto 406 at half the weight.

### VERDICT

The Manfrotto XPRO looks great, and works well too, though the new features add more to the weight and cost than to practical performance.

Handling	★★★★★
Performance	★★★★★
Value	★★★★★
<b>Overall</b>	★★★★★



## Sunwayfoto FB-44II DDHi

Street price: \$290

Weight: 460g  
Ball: 44mm elliptical  
Base: 57mm QR System: Arca-Swiss  
[www.cameragearuk.com](http://www.cameragearuk.com)

Sunwayfoto is one of the better quality Chinese brands. The FB-44II is a conventional design with a notably smooth locking action and good pre-load control, taking one whole turn to lock fully. The ball is elliptical, though the benefit here is less noticeable than on the Arca-Swiss P0, and there's a very small amount of framing shift on lock-down. The FBII can be had with different QR clamps, and this DDHi top-panning option is a little gem – precision engineered and weighing less than most non-panning clamps. It can be used as a gimbal with lighter loads, just by flipping the clamp over 90°.

### VERDICT

Light, smooth and easy to adjust, and the double-panning feature greatly extends versatility. Excellent value at only \$290 as well.

Handling	★★★★★
Performance	★★★★★
Value	★★★★★
<b>Overall</b>	★★★★★



## Manfrotto 468MG Hydrostatic

Street price: \$315

Weight: 690g  
Ball: 35mm  
Base: 60mm  
QR System: Various, inc. Arca-Swiss  
[www.manfrotto.com.au](http://www.manfrotto.com.au)

Not the newest, smallest, lightest, or the prettiest – but its unique hydraulic locking mechanism works very well indeed, and it's great value. The fat rubberised knob is very grippable and locks firmly in a quarter turn – just a bit more and it's totally vice-like. The best bit, though, is the friction pre-load, adjusted by the smaller metal knob that's click-stopped in precise increments for excellent fine control. Movement shift on lock-down is zero. One of the heavier ball heads at 690g, though built like a tank and can take anything you throw at it. Available in a choice of QR options, now including Arca-Swiss.

### VERDICT

One of the heftier heads on test, but indestructible and brilliant value. Great friction pre-load for fine control and no movement on lock-down.

Handling	★★★★★
Performance	★★★★★
Value	★★★★★
<b>Overall</b>	★★★★★



### CONCLUSION

Our first Best buy is the affordable and muscular Manfrotto Hydrostatic 468MG – an iron fist with a wonderfully delicate touch. Our second Best Buy is the little genius Arca-Swiss P0. With its uniquely strong, precise and lightweight mechanism, it just works so well. It's best with an L-bracket though, for vertical framing. Almost as good as the Arca-Swiss, the Acratech GP combines great performance with unrivalled versatility, and is beautifully designed and engineered – though \$750 is asking a lot. In the value-for-money stakes, the Sunwayfoto FB44-II is hard to beat. It's light, very smooth, controllable and a great choice for panoramas with that neat, top-panning clamp. Of the three-way options, the minimalist efficiency and light weight of the no-frills Manfrotto 460MG sets it apart from other heads.



# MEMORY CARDS

DO YOU KNOW YOUR READ SPEED FROM YOUR WRITE? OR IF 95MB/S IS BETTER THAN 1000X? IF NOT, THEN YOU'RE EITHER WASTING MONEY, OR NOT SPENDING ENOUGH! WE GUIDE YOU THROUGH THE MEMORY CARD MINEFIELD...

MEMORY CARDS USED to be very expensive and slow. How things have changed. Now you can get high-capacity, super-fast cards at very affordable prices. The choice is extensive, but the variety of options bewildering. What do those confusing 'MB/s' and '400x' figures actually mean, and what is the difference in real picture-taking terms? They are the data-transfer rates, the Read and Write speeds, with Write speed – how quickly the card can record data and clear the camera's buffer – being by far the most important consideration. To make the best purchasing decision, it's important to know what's what – get this wrong and you'll either be spending more money than you need, or not spending enough and losing out on camera performance. See our Read and Write speed panel on page 103.

While card speeds have improved dramatically, the main purchasing decision for most photographers remains the same – how much memory for how much money, or cost per GB. That's given in the

*Test:* RICHARD HOPKINS

comparison tables, based on 32GB versions to level the playing field, and also because that's generally the best value size in overall cost-per-GB terms.

It's a fast-moving market though; card specifications change and prices go both up and down. The prices we've quoted are an average of the highest and lowest we found, with the cheapest online, of course, such as Amazon, with bricks & mortar shops higher by 10% or sometimes more.

## How we did the test

We used a Nikon D800E for the main tests, because it has dual card slots for both CF (CompactFlash) and SD (Secure Digital) so both card types could be compared directly. Also, the D800E's high pixel count and fast processing engine can dump lots of data very quickly, and that really pushes card speed. While no two cameras perform exactly the same with a given card, our tests on other

DSLRs (including Canon, Pentax and Sony) proved that fast cards are always faster, even though the differences vary.

For the most important Write speed test, we photographed a standard scene with consistent lighting and a tripod-mounted camera. In continuous shooting mode, 14 frames of Raw on the Nikon D800E added up to 1GB (actually 1.006GB) and timing started when the data-transfer light came on, and stopped when the buffer was fully cleared and the light went off. A simple test that revealed big differences.

Read speed is the time it took to download that 1GB of data to computer, and here again the hardware has a big impact – such as the card reader, USB 2.0 or USB 3.0, and computer power. To ensure there were no bottlenecks to slow the tests down, Lexar USB 3.0 card readers were plugged into the USB 3.0 ports of a high performance PC. That was a Chillblast Fusion Photo OC Lite (\$2100) custom-built for photo processing with a quad-core i7 chip overclocked to 4.4GHz.

**TOP TIP**

Beware of cheap fakes. They look just like the real deal, and may appear to work like them, too – until you start to press on in continuous shooting mode, or they become faulty. The only way to be sure a card is genuine is to buy from a retailer supplied by the official distributor.

**MEMORY CARD MYTHS**

There are a few theories about best practice with memory cards, to minimise the chance of losing or corrupting data. One is to divide big shoots between several cards rather than one big one, so as not to put all your eggs in one basket, but on the other hand, this increases the risk of one card becoming faulty. Some advise not to delete unwanted images in-camera as you go, and not to swap cards in and out midway, though there's no real evidence that this does any harm and we all do it. In theory, memory cards can wear out with use, and lose some operating speed along the way. That might have been true years ago, but today's cards don't slow down and can take many hundreds of thousands of rewrite actions, so it's unlikely in practice. Much more probable is physical wear and tear or damage, particularly to the contacts. Card failure is rare and unpredictable, though it can happen.

**IF DISASTER STRIKES...**

If the worst happens, don't panic! It's very likely that the images are recoverable. If you accidentally erase images or reformat a card by mistake, the data is not actually wiped clean. What happens is the card's internal controller marks the relevant cells as available to be rewritten over. But so long as they have not been overwritten with new images – ie, you've noticed the problem immediately and stopped shooting – the original data remains intact and can be accessed with simple software; either the card manufacturer's own,

**MEMORY CARDS Dos and don'ts**

- ✓ Insert the card carefully, don't force it. They are a tight fit to ensure accurate alignment of the contacts.
- ✓ Do not switch off or jolt the camera when the data-light is on (say after a sequence in continuous shooting mode), and don't open the card door.
- ✓ When downloading to PC, insert the card carefully, don't jog it during data transfer, and use the 'safely eject media' feature when finished.
- ✓ Reformat the card in-camera after each download.
- ✓ Store cards safely, keep them clean and protected from damage. Card wallets are good and keep your workflow organised.

or there are lots of free generic programs online that work with any card. We used Recuva ([www.piriform.com/recuva](http://www.piriform.com/recuva)) and both deleted and formatted-over images – Raws and JPEGs – were back from the dead in just a few minutes, completely unscathed. Magic!

With more serious problems, there's still a very good chance that most if not all of the data can be recovered by specialist companies – check out [www.datarecoveryprofessionals.net](http://www.datarecoveryprofessionals.net). A common fault is the card controller goes down, which means the images are present but can't be accessed. Or maybe some data cells have become corrupt which will lose data, but as image information is always distributed across multiple cells, there's a high probability that most of it will be there and can be rescued. The golden rule is, as soon as you discover a problem, stop using the card.

**READ AND WRITE SPEED**

Read speed is how fast a card can download images to a computer. It's highly dependent on your hardware and for most people good performance here is much more a nice-to-have than an essential. If you're uploading direct to software at the same time, such as importing to Lightroom, then that'll be the bottleneck even with the fastest cards. Just go and make a cuppa.

Write speed is the important one – how quickly the card can record data and keep the camera's buffer clear to accept more images. For action subjects in continuous shooting mode (or HD video), high Write speed means that the camera won't slow down or lock up for more than a few seconds while the buffer clears; the slowest cards can shut everything down for longer, up to a couple of minutes before they're fully ready to go again. With most cameras, fast Write speed will give a few more Raw frames per continuous burst, and certainly a lot more JPEG frames, possibly an unlimited number.

For sports and wildlife shooters, high Write speed translates directly into major practical benefits. But if you work at a more leisurely pace, never firing more than a handful of frames in continuous shooting mode, then there is no obvious benefit to buying fast and expensive cards. Most of us are somewhere in-between, and the option to rattle off a decent burst of Raws is well worth having. A medium speed card will do that job nicely, and at a reasonable cost.

Card speed is quoted in Mega-Bytes-Per-Second (MB/s) or a '000x' figure, which mean the same thing. To convert a '000x' rating to MB/s, divide by 6.6, eg 400x is 60MB/s. The headline figure on the card is the Read speed; Write speeds are lower. In both cases, actual speeds rarely match the manufacturers' figures, though faster claimed speeds do work out to be relatively faster in practice. Most unhelpfully, some brands don't quote Write speeds, but we found that most cards with a high Read speed also had good Write performance. Any other performance markings are irrelevant these days.

## Secure Digital cards (SD-HC)

Brand	Version tested	Guide price for 32GB	Cost per GB	Warranty	Claimed read speed	Tested read speed per GB	Claimed write speed per GB	Tested write speed per GB	Continuous Raws D800E	Continuous JPEGs D800E	Performance rating	Value for money
1	Delkin SD-163x 8GB	\$35	\$1.09	Lifetime	24MB/s	60MB/s 17" per GB	17MB/s	11MB/s 94" per GB	16 frames	25 frames	●●●○○	●●●●○
2	Delkin SD-600x 8GB	\$60	\$1.87	Lifetime	90MB/s	68MB/s 15" per GB	45MB/s	21MB/s 50" per GB	16 frames	28 frames	●●●○○	●●●●○
3	Delkin SD-633x 8GB	\$99	\$3.09	Lifetime	95MB/s	77MB/s 13" per GB	80MB/s	37MB/s 28" per GB	16 frames	37 frames	●●●●○	●●●●○
4	Integral Class-4 8GB	\$25	\$0.78	5 years	NA	22MB/s 47" per GB	NA	5MB/s 21" per GB	16 frames	23 frames	●●○○○	●●●●○
5	Integral Class-10 8GB	\$29	\$0.91	5 years	30MB/s	42MB/s 24" per GB	NA	11MB/s 94" per GB	16 frames	25 frames	●●●○○	●●●●○
6	Integral Ultima-Pro 8GB	\$29	\$0.91	5 years	45MB/s	77MB/s 13" per GB	NA	22MB/s 46" per GB	16 frames	30 frames	●●●○○	●●●●●
7	Integral Ultima-Pro X 8GB	\$85	\$2.65	5 years	95MB/s	77MB/s 13" per GB	90MB/s	36MB/s 28" per GB	16 frames	39 frames	●●●●○	●●●●○
8	Lexar Pro-133x 8GB	\$33	\$1.03	Lifetime	20MB/s	22MB/s 47" per GB	NA	5MB/s 19" per GB	16 frames	24 frames	●●○○○	●●●●○
9	Lexar Pro-400x 16GB	\$39	\$1.22	Lifetime	60MB/s	60MB/s 17" per GB	NA	18MB/s 57" per GB	16 frames	27 frames	●●●○○	●●●●●
10	Panasonic Gold 90/25 8GB	\$45	\$1.41	10 years	90MB/s	76MB/s 14" per GB	25MB/s	19MB/s 55" per GB	16 frames	27 frames	●●●○○	●●●●●
11	Panasonic Gold 90/45 16GB	\$99	\$3.09	10 years	90MB/s	77MB/s 13" per GB	45MB/s	27MB/s 38" per GB	16 frames	30 frames	●●●○○	●●●●○
12	Patriot LX Series 8GB	\$29	\$0.91	5 years	NA	58MB/s 18" per GB	NA	10MB/s 10" per GB	16 frames	25 frames	●●●○○	●●●●○
13	Patriot EP Pro 32GB	\$50	\$1.56	5 years	90MB/s	76MB/s 13" per GB	50MB/s	26MB/s 39" per GB	16 frames	31 frames	●●●○○	●●●●○
14	PNY High Perf. 8GB	\$58	\$1.81	Lifetime	80MB/s	58MB/s 18" per GB	25MB/s	18MB/s 58" per GB	16 frames	27 frames	●●●○○	●●●●○
15	PNY Elite Perf. 8GB	\$86	\$2.69	Lifetime	100MB/s	76MB/s 13" per GB	45MB/s	35MB/s 29" per GB	16 frames	37 frames	●●●●○	●●●●○
16	Samsung Micro Evo 32GB	\$39	\$1.22	10 years	48MB/s	42MB/s 25" per GB	NA	18MB/s 56" per GB	16 frames	32 frames	●●●○○	●●●●●
17	Samsung Pro SDXC 64GB	\$86	\$2.69	10 years	90MB/s	76MB/s 14" per GB	80MB/s	35MB/s 29" per GB	16 frames	38 frames	●●●●○	●●●●○
18	Sandisk Extreme Pro 16GB	\$95	\$2.97	Lifetime	95MB/s	77MB/s 13" per GB	90MB/s	38MB/s 27" per GB	16 frames	41 frames	●●●●●	●●●●○
19	Sony 40MB/s 8GB	\$38	\$1.19	5 years	40MB/s	57MB/s 18" per GB	NA	11MB/s 95" per GB	16 frames	25 frames	●●●○○	●●●●○
20	Sony 94MB/s 8GB	\$58	\$1.81	5 years	94MB/s	75MB/s 14" per GB	NA	18MB/s 56" per GB	16 frames	28 frames	●●●○○	●●●●○
21	Transcend Premium 8GB	\$29	\$0.91	Lifetime	20MB/s	20MB/s 51" per GB	17MB/s	9MB/s 109" per GB	16 frames	25 frames	●●●○○	●●●●○
22	Transcend Ultimate 8GB	\$39	\$1.22	Lifetime	90MB/s	65MB/s 16" per GB	NA	17MB/s 59" per GB	16 frames	28 frames	●●●○○	●●●●●

## Compact Flash cards (CF)

Brand	Version tested	Guide price for 32GB	Cost per GB	Warranty	Claimed read speed	Tested read speed per GB	Claimed write speed per GB	Tested write speed per GB	Continuous Raws D800E	Continuous JPEGs D800E	Performance rating	Value for money
1	Delkin CF-700x 16GB	\$115	\$3.59	Lifetime	105MB/s	91MB/s 11" per GB	67MB/s	31MB/s 33" per GB	16 frames	36 frames	●●●●○	●●●●○
2	Delkin CF-1050x 32GB	\$185	\$5.78	Lifetime	160MB/s	111MB/s 9" per GB	120MB/s	51MB/s 20" per GB	17 frames	56 frames	●●●●●	●●●●○
3	Integral CF 8GB	\$23	\$2.87	5 years	NA	38MB/s 27" per GB	NA	11MB/s 95" per GB	16 frames	25 frames	●●●○○	●●●●○
4	Lexar Pro 800x 16GB	\$125	\$3.91	Lifetime	120MB/s	109MB/s 9" per GB	NA	29MB/s 36" per GB	16 frames	31 frames	●●●●○	●●●●○
5	Lexar Pro 1066x 16GB	\$195	\$6.09	Lifetime	160MB/s	114MB/s 9" per GB	NA	43MB/s 24" per GB	16 frames	52 frames	●●●●●	●●●●○
6	PNY Elite 16GB	\$135	\$4.22	Lifetime	100MB/s	95MB/s 11" per GB	50MB/s	31MB/s 33" per GB	16 frames	36 frames	●●●●○	●●●●○
7	SanDisk Extreme 16GB	\$150	\$4.69	Lifetime	120MB/s	97MB/s 11" per GB	60MB/s	39MB/s 26" per GB	16 frames	47 frames	●●●●●	●●●●○
8	Transcend CF133x 8GB	\$70	\$2.19	Lifetime	20MB/s	33MB/s 31" per GB	20MB/s	10MB/s 101" per GB	16 frames	25 frames	●●●○○	●●●●○
9	Transcend CF400x 8GB	\$82	\$2.56	Lifetime	60MB/s	69MB/s 15" per GB	45MB/s	24MB/s 43" per GB	16 frames	30 frames	●●●○○	●●●●●



### VERDICT: Secure Digital

SD cards are cheaper per GB than CF, though they couldn't match the Write speed of the fastest CF cards here. In the Nikon D800E, the fastest SD card scored 38MB/s (Sandisk Extreme Pro) compared to 51MB/s for the fastest CF (Delkin 1050x). Write speed is the most important performance consideration. Several cards put in a very good showing, with high performance at very good prices. Best Buy is the Integral Ultima Pro-X, followed by Highly Rated scores for the Delkin 633x, PNY Elite, Samsung SDXC Pro (SDXC cards may not function with some older DSLRs) and SanDisk Extreme Pro. The Integral Ultima Pro also did well, and comes Highly Rated due to an exceptionally low cost of \$0.90 per GB at the time of writing. Shop around as prices fluctuate all the time.



### VERDICT: Compact Flash

Overall, CF cards tend to be more expensive per GB than SD cards, though they're also the kings of speed. Cost per GB and the important Write speed (how fast to clear the camera's buffer) are very closely linked. The high performance Delkin 1050x, Lexar 1066x and SanDisk Extreme are all around \$5 per GB, but they tested at a lightning-fast 40-50MB/s Write speed, clearing the Nikon D800E's buffer completely in 20-26 seconds. The Delkin 1050x was the fastest card. The very fastest cards command a price premium, but if you stick to shorter bursts in continuous shooting mode without maxing out the buffer each time, most cameras will perform very well with one of the slightly slower cards in the Write speed test. For a substantial cost saving, our Best Buy is the Delkin 700x, with the Transcend 400x scoring Highly Rated.

## HITECH LUCROIT FILTER SYSTEM

A filter system that's both unique and versatile – but is it worth the high price tag? We find out...

Test: LEE FROST

### SPECIFICATIONS

**Price:** Holder \$320; lens adaptor \$295;

filters from \$180

**Dimensions:** Filters 165x165mm and 165x200mm

**Supplied accessories:** Two-slot filter holder and lens-specific adaptor

**Construction:** Plastic and aluminium

**Fittings:** See panel below for lens list

**Website:** [www.formatt-hitech.com](http://www.formatt-hitech.com)

In RECENT YEARS, ultra-wide lenses have become increasingly popular among photographers looking for new and exciting ways to capture the world around them. Not content with the wide end of a 16–35mm on full-frame, or a 10–20mm on APS-C, focal lengths are getting shorter and angles-of-view even wider.

The AF-S NIKKOR 14–24mm f/2.8G ED has been the weapon of choice of many discerning shooters for years thanks to its supreme optical quality, but Sigma goes wider with a corrected 12–24mm f/4.5–5.6 full-frame zoom or wacky 8–16mm f/4.5–5.6 fisheye zoom. There's also an increasing number of ultra-wide primes out there from Nikon, Canon, Samyang and Sigma.

The one problem with all of these lenses is that the bulbous front elements and built-in lens hoods mean it's impossible to fit a conventional 100mm filter system – and even if you could, every shot would be ruined by vignetting. Lee Filters remedied this problem for NIKKOR 14–24mm users with its SW150 filter system. But Formatt-Hitech also manufactures an ultra-wide filter system known as the Lucroit, and as well as fitting the NIKKOR 14–24mm, it's also compatible with many other ultra-wide primes and zooms (see panel).

The Hitech Lucroit system is based around a large two-slot plastic holder that accepts a range of 165x165mm standard filters and 165x200mm grads. The holder attaches to the lens via a lens-specific alloy ring that slips over the petal hood of the recipient lens and is held in place by a rubber ring. The filter holder then clips onto the adaptor ring and sits far enough back so that it falls outside the lens's field-of-view.

The Lucroit system isn't slick or pretty, but it's designed to solve a problem and it does so with flying colours. Despite its size, the plastic holder is lightweight while the most important part of the set-up – the lens adaptor – is machined from aluminium



so it's strong and more than capable of keeping the holder and filter firmly in place.

Fitting the adaptor to the lens can be fiddly at first as it has to be attached with reasonable accuracy so small lugs on it sit in the 'V's of the petal hood – if you don't achieve this, the filter holder won't sit back far enough on the lens so you may get vignetting. A rubber ring in the adaptor grips the outside of the lens hood to keep the adaptor in place so you need to use a bit of force to get it over the hood – though once you've done this a few times, it gets easier.

To avoid the hassle of fitting and removing the ring every time you use it, you can leave it in place on the lens. The downside of this is that the front lens cover probably won't fit, though you can buy a neoprene lens hood that will stretch over the front of the lens, keeping everything in place so the front element is protected.

With the adaptor on the lens, the filter holder clips in place with a push and rotates on the adaptor so you can angle your ND grad as required. The holder is big, which means it tends to get buffeted by the wind, but shielding it with your body solves that. There are two slots in the holder so you can combine two filters at once. The filters' surface area is also much bigger than with other systems so there's a greater chance of it getting raindrops or splashes on it. Keeping a microfibre cloth to hand remedies this.

Image quality from the filters is excellent and the NDs and ND grads are very neutral; in fact, the Hitech Prostop ND 3.0 is the only ten-stop ND filter I've ever used that doesn't add a strong colour cast to images (the Lee Filters Big Stopper is very cool and the B+W ND 110 3.0 is warm). The 165mm Prostop NDs for the Lucroit holder don't have a foam gasket on the back to seal any gaps in the filter holder slot and prevent light leaks and/or fogging. I didn't have problems with light leaks when I used the Prostop IRND ten-stop filter, but I've heard from other

### LENS COMPATIBILITY

The Hitech Lucroit system includes adaptors for the following lenses: Canon EF14mm f/2.8L and L II, Canon TS-E17mm f/4L, AF-S NIKKOR 14–24mm f/2.8G ED, Olympus 7–14mm f/4 Zuiko ED, Panasonic Lumix G Vario 7–14mm f/4 ASPH, Pelang 8mm f/3.5, Pentax smc-DA12–24mm f/4 ALED [IF], Samyang 14mm f/2.8 IF ED UMC, Samyang 8mm f/2.8 UMC, Sigma AF 12–24mm f/4.5–5.6 EX DG HSM, Sigma 8–16mm f/4.5–5.6 DC, Tokina 16–28mm f/2.8. Adaptors are also available to fit standard 72, 77 & 82mm lenses and Hasselblad 95mm.

photographers who have. Covering the top edge of the filter holder with a cloth to stop light creeping behind the ND could work if it becomes an issue for you.

A large range of filters are available to fit the Lucroit holder – solid NDs from one to ten stops, ND grads in soft and hard edged from one to four stops, reverse ND grads that are darker in the middle and lighter at the top, coloured grads, a clear filter so you can add your own effects such as soft focus, UV, portrait filters and various solid colour filters. For more information on the range of filters, visit: [www.formatt-hitech.com](http://www.formatt-hitech.com).

### VERDICT

The Lucroit system is agricultural in design and does take up quite a bit of bag space. But it's easy to use and it works! I used it on a Samyang 14mm f/2.8 IF ED UMC and a Sigma AF 12–24mm f/4.5–5.6 EX DG HSM and in both cases it produced vignette-free images. One of the great benefits of this system is that it includes ten-stop NDs; no other filter system allows that, which makes the Lucroit unique, albeit expensive.

**Build quality**



**Features**



**Performance**



**Value**



**Overall**





**TAKE IN A WIDER VIEW:** The Hitech Lucroit filter system allows you to use a wide range of filters with your bulbous ultra wide-angle and fisheye lenses.

# Your gallery

WORKS OF ART FROM THE DIGITAL PHOTOGRAPHY COMMUNITY



TAMRON

[facebook.com/tamron.au](https://facebook.com/tamron.au)

A wide-angle photograph of a sunflower field under a dramatic sunset sky. The sunflowers are in full bloom, their bright yellow petals contrasting with the deep green leaves and the warm orange and pink hues of the setting sun. The horizon is flat, and the sky is filled with wispy clouds.

# WINNER!

## Bathing in the Sun

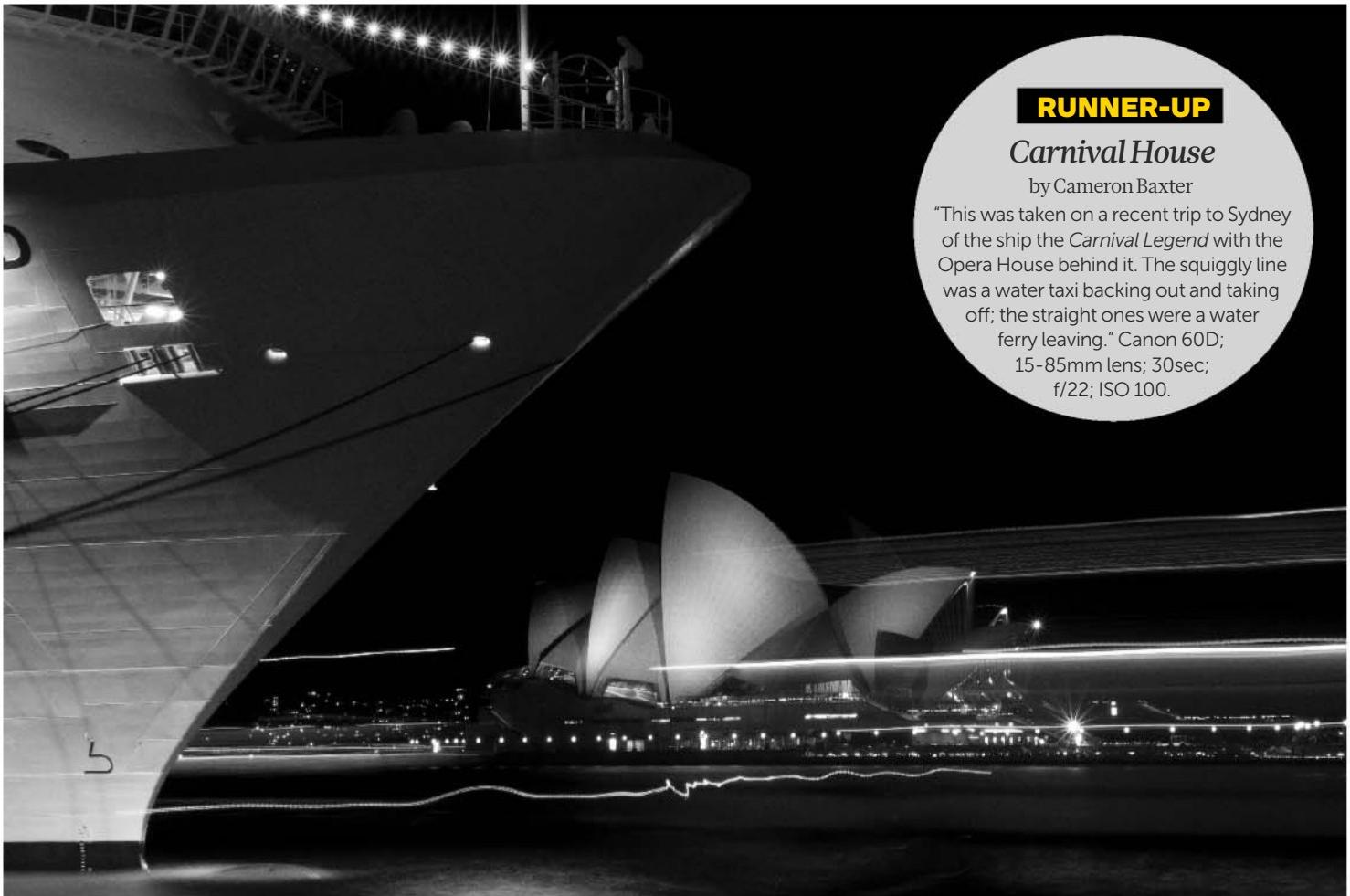
by Gareth McGuigan

"When the sunflower season began in Southern Downs, Qld, I went on a scouting trip looking for spots to shoot. In the distance I saw this shed and knew it was something special. With three hours to go till sunset I wasn't going anywhere else, so I set up here, waited and fired off many, many shots. This was one of my favourites." Canon 6D; 17-40mm lens; 1/15sec; f/18; ISO 100.

# WIN!

Congratulations to Gareth, who has won a Tamron B008 18-270mm Lens (\$849, [facebook.com/tamron.au](http://facebook.com/tamron.au)) for this terrific image, 'Bathing in the Sun' – all thanks to Maxwell International Australia ([www.maxwell.com.au](http://www.maxwell.com.au))



**RUNNER-UP****Carnival House**

by Cameron Baxter

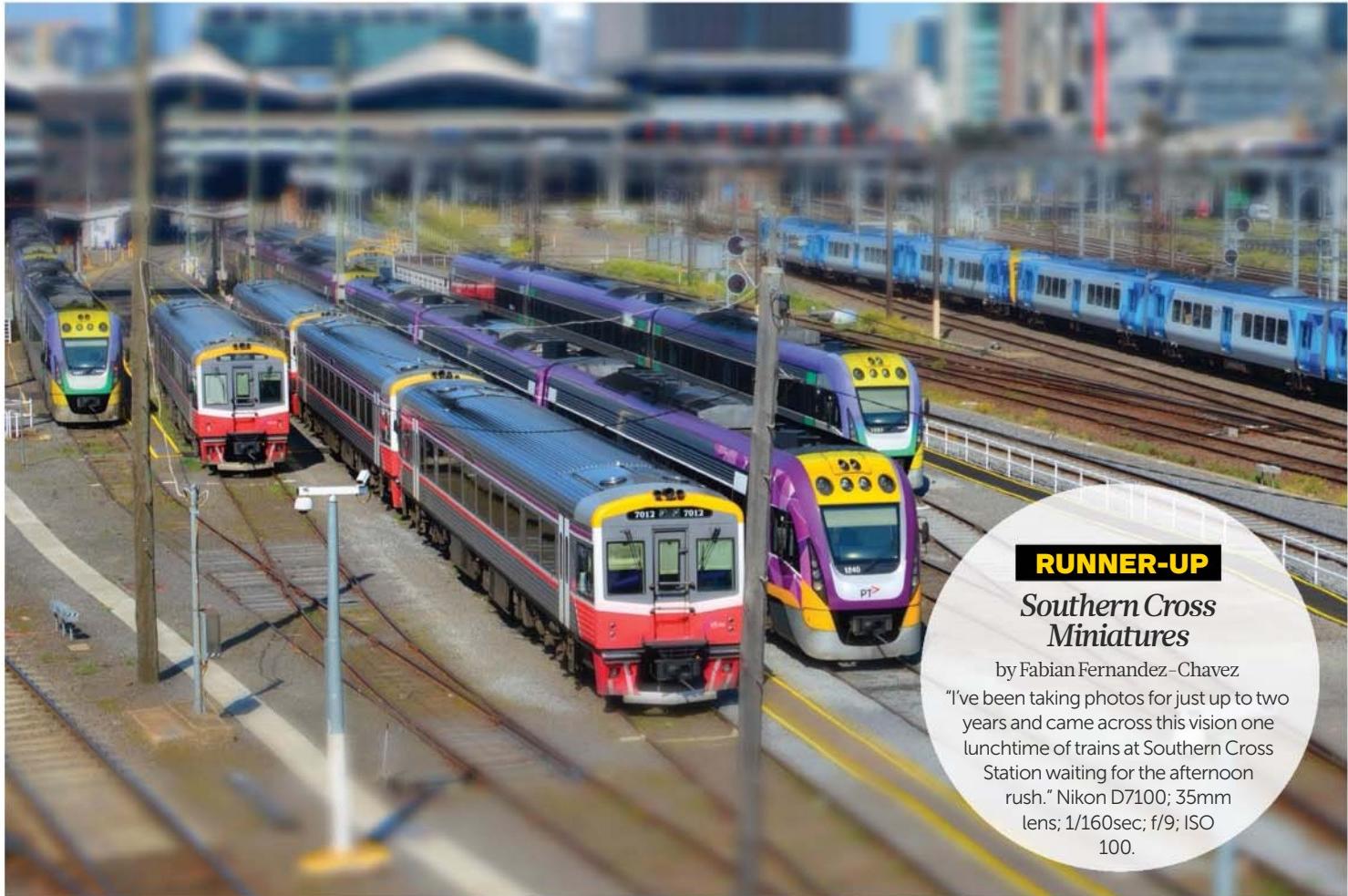
"This was taken on a recent trip to Sydney of the ship the *Carnival Legend* with the Opera House behind it. The squiggly line was a water taxi backing out and taking off; the straight ones were a water ferry leaving." Canon 60D; 15-85mm lens; 30sec; f/22; ISO 100.

**RUNNER-UP****Three Sheep**

by Maddie McKittrick

"We often get fantastic sunsets at our farm. The lighting on this particular day was incredible and the sheep were hanging around me, looking for food, so I got down on the ground and started shooting." Pentax K30; 28-80mm lens; 1/60sec; f/4.

**TAMRON**

**RUNNER-UP****Southern Cross Miniatures**

by Fabian Fernandez-Chavez

"I've been taking photos for just up to two years and came across this vision one lunchtime of trains at Southern Cross Station waiting for the afternoon rush." Nikon D7100; 35mm lens; 1/160sec; f/9; ISO 100.

**RUNNER-UP****Night Contrast**

by Nimit Nigam

"Long exposure at night of the Lotus Temple in New Delhi, India, with its amazing reflection. Notable for its flower-like shape, the Lotus Temple is a Bahá'í House of Worship completed in 1986." Nikon D800; 10-24mm lens; 15sec; f/16; ISO 160.

**RUNNER-UP**

*Chandratal*

by Sourabh Gandhi

"This is Chandratal, also known as Moon Lake, the Great Indian Landscape. The place is more beautiful than what is in the picture, breathtaking landscape and reflection." Canon 60D; 18-55mm lens; 1/50sec; f/18; ISO 100.





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## RUNNER-UP

### Beach Fishing

by David Reid

"From the lookout atop Conspicuous Cliff not far from Walpole in southwest WA, these two fishermen happened to walk directly below, adding a necessary sense of scale – so I took advantage of the attractive composition." Nikon D7000; 17-50mm lens; 1/320sec; f/18; ISO 800.



## SUBMIT YOUR IMAGES!

Think you've got what it takes to make the **Digital Photography** gallery? Whether you're a pro or an amateur, email pics to [editor@dpmagazine.com.au](mailto:editor@dpmagazine.com.au) for your chance to win. Each issue, we're giving away one Tamron B008 18-270mm Lens (\$849, [facebook.com/tamron.au](http://facebook.com/tamron.au)), plus super-cool Ultrafit Sling Straps from Joby (\$55 each, [joby.com](http://joby.com)). You can enter as often as you like. Good luck!

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